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ABSTRACT

This test item bank on auto body repair contains criterion-referenced test questions based upon competencies found in the Missouri Auto Body Competency Profile. Some test items are keyed for multiple competencies. The tests cover the following 26 competency areas in the auto body curriculum: auto body careers; measuring and mixing; tools and equipment; safety; writing a damage report; auto body welding; sheet metal repairs; plastic panel repairs; fiberglass panel repairs; body panel replacement; bumpers; refinishing equipment and techniques; refinishing procedures; fasteners; exterior molding and trim; vinyl tops and decals; interior repairs; glass; electrical systems; lighting systems; engine cooling systems; air conditioning; steering and suspension systems; frame-body and unibody construction; vehicle structural repair; and leadership competencies. (KC)

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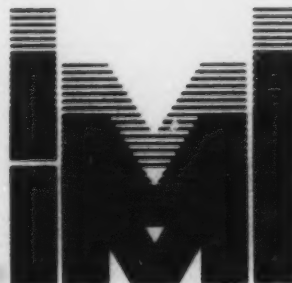
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Criterion-Referenced Test Items for **AUTO BODY**

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CE 056 298

AUTO BODY

Criterion-Referenced Test (CRT) Bank

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FOREWORD

Rapid advances in technology are placing heavy demands on both teachers and students in vocational education. These auto body criterion-referenced test items are designed to help meet these demands.

All test writers face one basic challenge: to produce test items that accurately measure what they are intended to measure. This challenge was kept firmly in mind by all those who participated in the development of the bank. The items in the bank are based upon competencies found on the Missouri Auto Body Competency Profile. Much care was taken to ensure that the test items will accurately measure a student's knowledge in regard to these competencies. Every effort was made to ensure that the items are presented in a fair and unbiased matter.

The items in this book are designed to work with both the Vocational Instructional Management System (VIMS) and VAMS. The test item bank will allow instructors and administrators to manage testing and evaluation activities in the most efficient way possible. For word processing and test-item generation purposes, an ASCII disk of the item bank has been included with this printed copy.

This test bank should be viewed as a beginning. It is hoped that future revisions and additions will build the bank into an even more powerful and reliable evaluation and management tool.

Judith Moore, supervisor
Industrial Education
Department of Elementary and Secondary Education

Charles "Chuck" Waibel, director
Industrial Education
Department of Elementary and Secondary Education

ACKNOWLEDGMENTS

This Auto Body Criterion-Referenced Test (CRT) Bank represents a continuing commitment to Missouri's Vocational Instructional Management System (VIMS). The bank is keyed to the auto body competency profile developed by industry and education professionals in the state. The cycle of curriculum development includes the following steps:

1. Development of the competency profile
2. Instructional analysis
3. Search for existing materials and/or a crosswalk of existing curriculum materials to the competency profile
4. Development of the curriculum guide
5. Field-test of the curriculum guide
6. Development of mediated curriculum (videos)
7. Development of the test-item bank

To ensure that test items are firmly based on information available to students, development of the test-item bank is the final component in the development cycle.

These individuals contributed to the development of the test items as advisory committee members, writers, and field testers:

Doug Anderson, The Joe Herndon AVTS
Harold Harden, Lex La-Ray Technical Center
Ronald Longnecker, South Central AVTS
Don Reeves, Dallas County AVTS
Don Roberts, Lewis & Clark Technical School
Ed Shivers, Four Rivers AVTS
Paul Snellen, Nichols Career Center

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Support and contributions of IML staff members were instrumental to this project's development:

Harley Schlichting, director
Amon Herd, associate director
Phyllis Miller and Dan Stapleton, assistant directors
Crystal Dietiker, graphic designer
Lori Hollday, word processor III
Fred Smith, graduate assistant
Wei Li, graduate assistant

REFERENCES USED FOR AUTO BODY CRITERION-REFERENCED TEST ITEMS

Goodrick, Bill. Missouri VICA Curriculum Guide: Instructor's Guide. Columbia, MO: Instructional Materials Lab, 1986.

Helms, Roger. Auto Body Repair Curriculum Guide: Modules 1 through 8. Columbia, MO: Instructional Materials Lab, 1986.

VICA. Written Tests for Auto Body. Jefferson City, MO: Missouri Vocational Industrial Clubs of America, n.d.

V-TECS. Basic Auto Body Repair and Refinishing (Test Item Bank). Decatur, GA: Vocational-Technical Educational Consortium of States, 1989.

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Field	Contents
1	Unique item number
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Field	Contents
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6	Learning domain (Cognitive, Affective, Psychomotor)
7	Writer(s)/reviewer(s)
8	Accompanying artwork (ART)

.....
1. | A1 | b | IML Module 1 | 0889 | C | Don Roberts |

Which job is NOT related to the auto body field?

- a. Estimator
- b. Fabricator
- c. Upholsterer
- d. Manager

.....
2. | A1 | c | IML Module 1 | 0889 | C | Don Roberts |

How many years does an apprentice usually work before becoming a journeyman auto body technician?

- a. 1 to 2
- b. 2 to 3
- c. 3 to 4
- d. 4 to 5

.....
3. | A1 | d | IML Module 1 | 0889 | C | Don Roberts |

On what basis do auto body shops usually pay their technicians?

- a. Flat rate
- b. Guaranteed weekly salary
- c. Straight hourly rate
- d. All of the above

.....
4. | A1 | b | IML Module 1 | 0889 | C | Don Roberts |

Men and women who do sheet metal work and painting in an automobile assembly plant are sometimes called auto body technicians.

- a. True
- b. False

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.....
5. | A2 | b | IML Module 1 | 0889 | C | Don Roberts |

Which item is located toward the front of an automobile?

- a. Floor pan
- b. Fire wall
- c. Gas tank
- d. Muffler

.....
6. | A2 | d | IML Module 1 | 0889 | C | Don Roberts |

Which auto body component is a fascia panel?

- a. Door skin
- b. Quarter panel
- c. Fender
- d. Bumper

.....
7. | A2 | d | IML Module 1 | 0889 | C | Don Roberts |

Which auto body component is NOT bolted to a vehicle?

- a. Fender
- b. Door
- c. Hood
- d. Quarter panel

.....
8. | A2 | a | VICA | 0889 | C | Harold Harden |

The cowl assembly area includes the dash panel.

- a. True
- b. False

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.....
1. | B1 | a | IML Module 2 | 0889 | C | Doug Anderson |

Which measurement is indicated by the mark of greatest height on a fractional rule?

- a. 1"
- b. 3/4"
- c. 2/3"
- d. 1/32"

.....
2. | B1 | d | IML Module 2 | 0889 | C | Doug Anderson |

Which measurement is indicated by the mark of least height on a fractional rule?

- a. 1"
- b. 2/3"
- c. 3/4"
- d. 1/32"

.....
3. | B1 | a | IML Module 2 | 0889 | C | Doug Anderson |

One meter is longer than one yard.

- a. True
- b. False

.....
4. | B1 | a | IML Module 2 | 0889 | C | Doug Anderson |

Which measurement is indicated by the mark of least height on a metric rule?

- a. Millimeter
- b. Centimeter
- c. Decimeter
- d. Meter

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.....
5. | B2 | c | IML Module 2 | 0889 | C | Doug Anderson |

How many one-half pints are in two quarts?

- a. 4
- b. 6
- c. 8
- d. 10

.....
6. | B2 | b | IML Module 2 | 0889 | C | Doug Anderson |

How many ounces are in one-half gallon?

- a. 32
- b. 64
- c. 72
- d. 128

.....
7. | B2 | c | IML Module 2 | 0889 | C | Doug Anderson |

In order to reduce 32 ounces of paint by 50%, how much reducer must be added?

- a. 4
- b. 8
- c. 16
- d. 32

.....
8. | B2 | c | IML Module 2 | 0889 | C | Doug Anderson |

One gallon of paint mixed at a ratio of six parts paint to one part reducer to one part catalyst contains how many ounces of catalyst?

- a. 4
- b. 8
- c. 16
- d. 32

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.....
1. | C1 | b | IML Module 1 | 0889 | C | Don Roberts |

Safety requires that a hammer be struck against a metal surface at an angle.

- a. True
- b. False

.....
2. | C1 | b | IML Module 1 | 0889 | C | Don Roberts |

Most screw drivers are designed to be driven with a hammer.

- a. True
- b. False

.....
3. | C1 | b | IML Module 1 | 0889 | C | Don Roberts |

A damaged jaw on an open-end wrench can be resurfaced.

- a. True
- b. False

.....
4. | C1 | b | IML Module 1 | 0889 | C | Don Roberts |

Pliers should be used to turn a bolt if the proper wrench is NOT available.

- a. True
- b. False

.....
5. | C2 | a | IML Module 1 | 0889 | C | Don Roberts |

A hammer can be used more safely if dirt is cleaned from its head.

- a. True
- b. False

.....
6. | C2 | a | IML Module 1 | 0889 | C | Don Roberts |

A technician can pull a dent by using a slide hammer in combination with a body hammer.

- a. True
- b. False

.....
7. | C2 | a | IML Module 1 | 0889 | C | Don Roberts |

When turning a bolt, a technician should always push the wrench away from his or her body.

- a. True
- b. False

.....
8. | C2 | c | IML Module 1 | 0889 | C | Don Roberts |

What is the correct method for repairing a slotted screw driver bit?

- a. Dress the bit with a bench grinder
- b. Flatten the bit with a hammer and anvil
- c. Replace the bit
- d. File the bit

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.....
 9. | C3 | b | IML Module 1 | 0889 | C | Don Roberts |

A body grinder should be turned off after it is removed from the work.

- a. True
- b. False

.....
 10. | C3 | a | IML Module 1 | 0889 | C | Don Roberts |

What advantage is gained by center punching a piece of metal before drilling a hole in it?

- a. The drill is prevented from wandering
- b. A dull drill bit can be used
- c. The metal's paint is protected
- d. Less drilling time is required

.....
 11. | C3 | d | IML Module 1 | 0889 | C | Don Roberts |

Which maintenance procedure does NOT apply to an air compressor?

- a. Draining the water from the tank daily
- b. Cleaning or replacing vent filters weekly
- c. Changing the compressor oil monthly
- d. Replacing breaker fuses monthly

.....
12. | C3 | a | IML Module 1 | 0889 | C | Don Roberts |

A technician should never crawl under a vehicle supported only by a jack.

- a. True
- b. False

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.....
13. | C4 | b | IML Module 1 | 0889 | C | Don Roberts |

Plastic housings on electric tools prevent the user from being shocked.

- a. True
- b. False

.....
14. | C4 | c | IML Module 1 | 0889 | C | Don Roberts |

Air tools should normally be operated with NOT more than how many pounds of air pressure?

- a. 45
- b. 55
- c. 90
- d. 110

.....
15. | C4 | b | IML Module 1 | 0889 | C | Don Roberts |

Minor fluid leaks in hydraulic lifting equipment may be acceptable.

- a. True
- b. False

.....
16. | C4 | a | IML Module 1 | 0889 | C | Don Roberts |

Pneumatic power tools are generally safer than electric power tools.

- a. True
- b. False

Field	Contents
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.....
17. | C5 | b | IML Module 1 | 0889 | C | Don Roberts |

Which piece of equipment should be used to support a unibody vehicle?

- a. Pneumatic bumper-type end lift
- b. Frame stands
- c. Pinch weld clamp
- d. Porta power

.....
18. | C5 | c | IML Module 1 | 0889 | C | Don Roberts |

A floor jack should lift a unibody vehicle at what location?

- a. Pinch weld
- b. Rocker panel
- c. Torque box
- d. Wheel well

.....
19. | C5 | a | IML Module 1 | 0889 | C | Don Roberts |

The technician should never crawl under a vehicle in order to place jack stands.

- a. True
- b. False

.....
20. | C5 | b | IML Module 1 | 0889 | C | Don Roberts |

If a vehicle has heavy frame damage, the technician should lift the vehicle by its front or rear rails.

- a. True
- b. False

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8	Accompanying artwork (ART)

.....
1. | D1 | a | IML Module 1 | 0889 | C | Don Roberts |

OSHA is a federal agency.

- a. True
- b. False

.....
2. | D1 | a | IML Module 1 | 0889 | C | Don Roberts |

The EPA issues guidelines concerning environmental safety.

- a. True
- b. False

.....
3. | D1 | b | IML Module 1 | 0889 | C | Don Roberts |

Both OSHA and the EPA set and enforce guidelines for welding galvanized steel.

- a. True
- b. False

.....
4. | D2 | b | IML Module 1 | 0889 | C | Don Roberts |

Torn sheet metal should be stored on the shop floor.

- a. True
- b. False

.....
5. | D2 | d | IML Module 1 | 0889 | C | Don Roberts |

Which should be done first before road testing a vehicle?

- a. Adjust the mirrors
- b. Check all gauges
- c. Adjust the seat
- d. Fasten the seat belt

.....
6. | D2 | b | IML Module 1 | 0889 | C | Don Roberts |

A welding arc can be viewed safely at a distance of 50 feet.

- a. True
- b. False

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.....
7. | D3 | c | IML Module 1 | 0889 | C | Don Roberts |

Which is NOT a piece of welding safety equipment?

- a. Spats
- b. Gauntlets
- c. Particle mask
- d. Safety glasses

.....
8. | D3 | a | IML Module 1 | 0889 | C | Don Roberts |

Safety glasses do NOT offer protection from which of the following eye hazards?

- a. Reducer
- b. Plastic dust
- c. Flying objects
- d. All of the above

.....
9. | D3 | b | IML Module 1 | 0889 | C | Don Roberts |

A charcoal filter respirator does NOT have a mask.

- a. True
- b. False

.....
10. | D3 | a | IML Module 1 | 0889 | C | Don Roberts |

When mixing lacquer primer, a technician should wear rubber gloves.

- a. True
- b. False

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.....
11. | D4 | b | IML Module 1 | 0889 | C | Don Roberts |

The main purpose of a fire blanket is to smother small wood or cloth fires.

- a. True
- b. False

.....
12. | D4 | a | IML Module 1 | 0889 | C | Don Roberts |

Knowing the location of which item is the first line of defense against fire?

- a. Fire extinguisher
- b. Fire alarm
- c. Fire blanket
- d. Sprinkler system

.....
13. | D4 | b | IML Module 1 | 0889 | C | Don Roberts |

Which class of fire extinguisher contains carbon dioxide?

- a. Class A
- b. Class B, C
- c. Class A, B, C
- d. Class D

.....
14. | D4 | b | IML Module 1 | 0889 | C | Don Roberts |

Water can be used to put out small chemical fires.

- a. True
- b. False

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.....
15. | D5 | d | IML Module 1 | 0889 | C | Don Roberts |

Which is a hazardous material?

- a. Paint
- b. Fiberglass filler
- c. Gasoline
- d. All of the above

.....
16. | D5 | a | IML Module 1 | 0889 | C | Don Roberts |

When mixing fiberglass resin, a technician should wear safety glasses.

- a. True
- b. False

.....
17. | D5 | a | IML Module 1 | 0889 | C | Don Roberts |

Refinishing materials can harm unprotected skin.

- a. True
- b. False

.....
18. | D5 | b | IML Module 1 | 0889 | C | Don Roberts |

Weld-through primer is a nontoxic material.

- a. True
- b. False

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.....
1. | E1 | a | IML Module 1 | 0889 | C | Doug Anderson |

When involved in an accident, unibody vehicles usually receive direct and indirect damage.

- a. True
- b. False

.....
2. | E1 | a | IML Module 1 | 0889 | C | Doug Anderson |

When analyzing vehicle damage, the technician should identify structural damage first.

- a. True
- b. False

.....
3. | E1 | a | IML Module 1 | 0889 | C | Doug Anderson |

A tram gauge must be used to complete an under-hood damage report.

- a. True
- b. False

.....
4. | E2 | b | IML Module 1 | 0889 | C | Fred Smith |

Collision manuals describe how to repair damaged panels.

- a. True
- b. False

.....
5. | E2 | a | IML Module 1 | 0889 | C | Fred Smith |

Collision manuals usually list the overlap time involved in large repairs.

- a. True
- b. False

.....
6. | E2 | b | IML Module 1 | 0889 | C | Fred Smith |

A collision manual will describe where to look for primary damage.

- a. True
- b. False

.....
7. | E2 | a | IML Module 1 | 0889 | C | Fred Smith |

A collision manual will often list the cost of repair panels.

- a. True
- b. False

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.....
8. | E3 | a | IML Module 1 | 0889 | C | Fred Smith |

A written estimate should include repair activities that must be sublet.

- a. True
- b. False

.....
9. | E3 | a | IML Module 1 | 0889 | C | Fred Smith |

Before an estimate can be written, the vehicle damage must be analyzed.

- a. True
- b. False

.....
10. | E3 | a | IML Module 1 | 0889 | C | Fred Smith |

When writing an auto body repair estimate, the technician should inspect five areas for damage.

- a. True
- b. False

.....
11. | E3 | a | IML Module 1 | 0889 | C | Fred Smith |

When writing an auto body repair estimate, the technician should always check welds and paint stress.

- a. True
- b. False

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.....
1. | F1 | a | IML Module 2 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which auto body metal is considered unrepairable after it is broken?

- a. High-strength steel
- b. Mild-strength steel
- c. Low-strength alloy
- d. Pot metal

.....
2. | F1 | b | IML Module 2 | 0889 | C | Harold Harden &
Ronald Longnecker |

When MIG welding sheet metal, a technician should use which procedure to minimize warpage?

- a. Spraying water on the hot metal
- b. Using spot welds every few inches
- c. Welding as quickly as possible
- d. Welding with low, nonpenetrating heat

.....
3. | F1 | d | IML Module 2 | 0889 | C | Harold Harden &
Ronald Longnecker |

Welding gas is used for which purpose during MIG welding?

- a. To blow away smoke
- b. To cool weld areas
- c. To cool the wire feed
- d. To shield weld areas

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.....
4. | F2 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

Which piece of safety clothing is NOT required for MIG welding?

- a. Safety glasses
- b. Welder's hat
- c. Face shield
- d. Gloves

.....
5. | F2 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

How should a technician clean the gun on a MIG welder?

- a. Dip the gun in water
- b. Dip the gun in motor oil
- c. Use a clean, dry rag
- d. Wrap the gun in a damp rag

.....
6. | F2 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

Which safety procedure can protect bystanders during MIG welding?

- a. Dampening the floor with water
- b. Covering the floor with sand
- c. Shielding the work area
- d. None of the above

.....
7. | F2 | d | IML Module 2 | 0889 | C | Ronald Longnecker |

How should a technician check the wire feed on a MIG welding gun?

- a. Look into the tip
- b. Hold a finger over the tip
- c. Scratch the tip
- d. None of the above

.....
8. | F2 | c | IML Module 2 | 0889 | C | Harold Harden &
Ronald Longnecker |

What should the technician do before leaving the gas metal arc welding area?

- a. Turn down the gun's amperage
- b. Remove welding helmet and apron
- c. Turn off the gas and welder
- d. Hand the gun to an assistant

.....
9. | F2 | d | IML Module 2 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which item should be used to clean welding cables and hoses?

- a. Sandpaper
- b. Wire brush
- c. Oily rag
- d. Clean, dry rag

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.....
 10. | F2 | c | IML Module 2 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Which item should always be disconnected before MIG welding a vehicle?

- a. Electric fuel pump
- b. Fuel tank
- c. Negative battery cable
- d. Positive battery cable

.....
 11. | F2 | a | IML Module 2 | 0889 | C | Harlod Harden &
 Ronald Longnecker |

When cut or welded, galvanized steel gives off more toxic fumes than any other metal.

- a. True
- b. False

.....
12. | F3 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

The wire feed adjustment on a MIG welding gun should be set on the speed that results in the best flow.

- a. True
- b. False

.....
13. | F3 | d | IML Module 2 | 0889 | C | Ronald Longnecker |

Which gases are used for shielding during MIG welding?

- a. Argon
- b. CO^2
- c. Argon and CO^2
- d. All of the above

.....
14. | F3 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

What is the normal ESO for short circuit transfer in MIG welding?

- a. 1/4" to 3/8"
- b. 1/2" to 1"
- c. 3/4" to 1 1/4"
- d. None of the above

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.....
15. | F3 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

Which MIG welding component directs and holds gas around the welding zone?

- a. Gas deflector
- b. Nozzle insulator
- c. Nozzle
- d. Contact tip

.....
16. | F4 | b | IML Module 2 | 0889 | C | Paul Snellen |

Before it is welded, a metal surface should be cleaned with which solutions?

- a. Reducer, enamel, and thinner
- b. Soap, water, and grease remover
- c. Alcohol, vinyl protectors, and thinner
- d. None of the above

.....
17. | F4 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

Surface metal should be free of paint before it is welded.

- a. True
- b. False

.....
18. | F4 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

A butt weld is usually made with overlapping joints.

- a. True
- b. False

.....
19. | F4 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Before welding zinc-coated metal, the technician must grind off the zinc.

- a. True
- b. False

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.....
 20. | F4 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Inserts are used on lap welds.

- a. True
- b. False

.....
21. | F5 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Weld-through primer will usually reduce the strength of a weld.

- a. True
- b. False

.....
22. | F5 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

To provide the greatest rust protection, the technician should apply as much weld-through primer as possible to the surface to be welded.

- a. True
- b. False

.....
23. | F5 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When should weld-through primer be applied to weld joints?

- a. Prior to welding
- b. During welding
- c. Just after the weld is completed
- d. Approximately 30 minutes after the weld is completed

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.....
 24. | F6 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

When plug welding two panels of different thicknesses, the thinnest panel should be closest to the welder.

- a. True
- b. False

.....
 25. | F6 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

When multiple layers of sheet metal are plug welded, the hole closest to the welding tip should be smaller than 1/8 of an inch.

- a. True
- b. False

.....
 26. | F6 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When using the plug weld method with a MIG welder, the technician can weld from one side only.

- a. True
- b. False

.....
27. | F6 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When plug welding light-gauge metal with a MIG welder, the technician should use small holes.

- a. True
- b. False

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.....
 28. | F7 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When using a MIG welder to continuous weld an auto body panel, the technician will seldom make welds with a beginning-to-end pass.

- a. True
- b. False

.....
 29. | F7 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Which pattern should the technician follow when using a MIG welder to continuous weld light-gauge metal?

- a. Weld one inch and skip one inch
- b. Weld two inches and skip two inches
- c. Weld three inches and skip three inches
- d. Weld four inches and skip four inches

.....
 30. | F7 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When using the continuous weld method, the technician should make sure the gaps are completely closed.

- a. True
- b. False

.....
31. | F7 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

What should the maximum gap width be when continuous welding is performed with a gap?

- a. 1 inch
- b. 2 inches
- c. 3 inches
- d. 4 inches

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.....
32. | F8 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Where should the technician stand when stitch welding with the overhead method?

- a. Underneath the work
- b. At one side of the work
- c. In front of the work
- d. None of the above

.....
33. | F8 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

Which type of motion is required for most approved auto body stitch welds?

- a. Large waving motion
- b. Slight weaving motion
- c. Straight pattern motion
- d. None of the above

.....
34. | F8 | d | IML Module 2 | 0889 | C | Ronald Longnecker |

The interval for shutting off the MIG welder is how many seconds?

- a. 2 seconds
- b. 3 seconds
- c. 4 seconds
- d. None of the above

.....
35. | F9 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

To avoid distorting the metal, the technician should use a temperature-indicating crayon when MIG welding.

- a. True
- b. False

.....
36. | F9 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

High-strength steel should be allowed to cool naturally.

- a. True
- b. False

.....
37. | F9 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

High-strength steel is designed to be heated for long periods of time.

- a. True
- b. False

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.....
 38. | F10 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

The protective caps on gas cylinders should always be in place when the cylinders are shipped or stored.

- a. True
- b. False

.....
 39. | F10 | b | IML Module 2 | 0889 | C | Ronald Longnecker |

At which temperature will the safety plug on an acetylene tank melt?

- a. 100°F
- b. 220°F
- c. 300°F
- d. None of the above

.....
 40. | F10 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

At which pressure does acetylene gas become unstable?

- a. 15 psi
- b. 20 psi
- c. 30 psi
- d. None of the above

.....
41. | F10 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

Which device should be used to start an oxyacetylene welder?

- a. Match
- b. Lighter
- c. Striker
- d. None of the above

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.....
42. | F11 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

When opening an acetylene cylinder valve, how far should the technician turn the valve?

- a. 1/4 turn
- b. 1/2 turn
- c. 1 1/2 turns
- d. 2 1/2 turns

.....
43. | F11 | c | IML Module 2 | 0889 | C | Ronald Longnecker |

Which letters indicate that an acetylene or oxygen cylinder is empty?

- a. OT
- b. DE
- c. MT
- d. None of the above

44. | F11 | a | IML Module 2 | 0889 | C | Ronald Longnecker |

Oxygen and acetylene cylinders should be stored in a well-ventilated area.

- a. True
- b. False

.....

45. | F12 | c | IML Module 2 | 0889 | C | Ronald
Longnecker

Which term refers to the loud pop that occurs when the flame burns back into the tip of a welding gun?

- a. Expansion pop
- b. Flashback
- c. Backfire
- d. All of the above

.....

46. | F12 | d | IML Module 2 | 0889 | C | Ronald
Longnecker

Which component is a part of a cutting torch?

- a. Acetylene fitting
- b. Oxygen fitting
- c. Oxygen torch valve
- d. All of the above

.....

47. | F12 | a | IML Module 2 | 0889 | C | Ronald
Longnecker

Paint and rust should be removed from metal before it is welded.

- a. True
- b. False

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8	Accompanying artwork (ART)

.....
 48. | F12 | a | IML Module 2 | 0889 | C | Ronald
 Longnecker

A cutting torch should NOT be used to cut empty chemical barrels.

- a. True
- b. False

.....
49. | F13 | c | IML Module 2 | 0889 | C | Ronald
Longnecker

Which footwear should be worn while welding or cutting metal?

- a. Tennis shoes
- b. Sandals
- c. Steel-toe boots
- d. None of the above

.....
50. | F13 | b | IML Module 2 | 0889 | C | Ronald
Longnecker

What type of gloves should be worn during welding?

- a. Rubber gloves
- b. Leather gloves
- c. Jersey gloves
- d. Cloth gloves

.....
51. | F13 | a | IML Module 2 | 0889 | C | Ronald
Longnecker

A welder's cap protects what part of the body?

- a. Hair
- b. Ears
- c. Back of the neck
- d. All of the above

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.....
52. | F13 | d | IML Module 2 | 0889 | C | Ronald
Longnecker

Which articles of clothing should a technician wear when welding?

- a. Shorts and a T-shirt
- b. Long pants and a T-shirt
- c. Shorts and a long-sleeve shirt
- d. None of the above

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1. | G1 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which repair procedure should be used on a high-strength steel panel that is broken or bent over itself?

- a. Remove and replace
- b. Lightly hammer and MIG weld
- c. Pull and file
- d. Pull and apply heat

2. | G1 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Gauge measurements should be used to analyze unibody damage.

- a. True
- b. False

3. | G1 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which should a technician consider first when analyzing vehicle damage?

- a. Cosmetic panel damage
- b. Structural damage
- c. Electrical system damage
- d. Mechanical damage

.....
4. | G1 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Broken spot welds are indications of secondary damage.

- a. True
- b. False

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Field	Contents
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.....
5. | G2 | d | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which solution should be used to clean a painted surface before a wax and grease remover is applied?

- a. Lacquer thinner
- b. Mineral spirits
- c. Rubbing compound
- d. Soapy water

.....
6. | G2 | d | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Before repair, why should any auto body surface be prepared properly?

- a. Makes repair faster
- b. Makes repair cheaper
- c. Saves wear on tools
- d. Establishes a good foundation for repair

.....
7. | G2 | d | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which solution should be used to preclean a painted panel before sanding?

- a. Lacquer thinner
- b. Mineral spirits
- c. Slow-drying enamel reducer
- d. Wax and grease remover

8. | G2 | a | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which item should be used to apply cleaning solvent to a body panel?

- a. Paint shop towel
- b. Clean grease rag
- c. Clean shop towel
- d. Old newspaper

66

Field	Contents
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.....
 9. | G3 | b | V-TECS | 0889 | C | Ed Shivers & Paul
 Snellen |

Which term refers to a metal's ability to return to its original shape?

- a. Rebound
- b. Elasticity
- c. Shrinkage
- d. Warpage

.....
 10. | G3 | b | V-TECS | 0889 | C | Ed Shivers & Paul
 Snellen |

In which repair method is the dolly held to the side of the point at which the hammer is struck?

- a. On-dolly
- b. Off-dolly
- c. Hard-dolly
- d. Soft-dolly

.....
11. | G3 | c | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which repair method should be used on a body panel that has been overstretched?

- a. Heating
- b. Quenching
- c. Shrinking
- d. Work hardening

12. | G3 | b | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which tools should be used to work a damaged metal area back to its proper shape?

- a. Cheese grater and grinder
- b. Hammer and dolly
- c. Pry-bar and jack
- d. Rubber block and hammer

65

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8	Accompanying artwork (ART)

.....
 13. | G4 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

At what point during metal straightening should a panel be shrunk?

- a. After straightening, when metal is too low
- b. After straightening, when metal is too high
- c. When the panel no longer has an oil-canning effect
- d. When the panel is very firm

.....
 14. | G4 | c | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

A heat shrink should be the size of which coin?

- a. Half dollar
- b. Quarter
- c. Dime
- d. Nickel

.....
15. | G4 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

During heat shrinking, the shrink area should be heated to which color?

- a. Cherry red
- b. White
- c. Blue
- d. Pink

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.....
 16. | G5 | b | V-TECS | 0889 | C | Ed Shivers & Paul
 Snellen |

When preparing a panel area for plastic body filler application, the technician should grind how many inches beyond the damage?

- a. 1
- b. 3
- c. 6
- d. 9

.....
 17. | G5 | c | V-TECS | 0889 | C | Ed Shivers & Paul
 Snellen |

Which piece of equipment should the technician wear while sanding plastic filler?

- a. Air-supplied respirator
- b. Face shield
- c. Particle mask
- d. Single cartridge mask

.....
18. | G6 | d | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which procedure should the technician perform after grating body filler to contour?

- a. Apply two coats of primer
- b. Apply primer sealer
- c. Finish sanding the edge of the paint
- d. Finish sanding the plastic filler

.....
19. | G6 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Body plastic filler should be applied with which tool?

- a. Black rubber squeegee
- b. Plastic spreader
- c. 4" x 6" piece of 12-gauge metal
- d. Putty knife

.....
20. | G6 | a | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

How should plastic filler be applied?

- a. In accordance with the panel contour
- b. From left to right
- c. From top to bottom
- d. Diagonally

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.....
 21. | G7 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Which grit of sandpaper should be used to prepare plastic for priming?

- a. 40
- b. 80
- c. 220
- d. 320

.....
 22. | G7 | d | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

A file with 36- or 40-grit sandpaper serves which purpose during plastic refinishing?

- a. Makes plastic flat
- b. Makes plastic straight
- c. Prevents waves in plastic
- d. Reaches proper contour of plastic

.....
23. | G7 | d | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Before refinishing a panel, the technician should sand the plastic filler in which manner?

- a. Up and down
- b. At a 30° to 45° angle
- c. From left to right
- d. All of the above

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.....
 24. | G8 | c | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Why should corrosion protection be applied to the inter frame rail of a unibody vehicle?

- a. To meet government standards
- b. To keep oil off of metal surfaces
- c. To restore vehicle warranty specifications
- d. To meet DECA standards

.....
 25. | G8 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Vehicle manufacturers apply which coating first to bare steel bars?

- a. Galvanized coating
- b. Conversion coating
- c. Mercury coating
- d. Lead coating

.....
26. | G9 | c | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Using a weld-on stud gun on a panel eliminates the need for performing which procedure?

- a. Grinding the panel
- b. Hammering the panel
- c. Drilling holes in the panel
- d. Coating the panel

.....
27. | G9 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Use of a weld-on stud gun can save time during auto body work.

- a. True
- b. False

.....
28. | G9 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Weld-on stud guns use which supplies?

- a. Welding rods
- b. Steel nails
- c. Primer-coated rivets
- d. Oxygen and nitrogen

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 29. | G9 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Weld-on stud guns use steel studs, washers, and a slide hammer.

- a. True
- b. False

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.....
 1. | H1 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Which procedure should the technician use to identify the type of plastic from which a panel is made?

- a. Visually inspecting the panel
- b. Cutting and burning a panel sliver
- c. Removing the panel
- d. Tearing the panel

.....
 2. | H1 | a | V-TECS | 0889 | C | Paul Snellen |

Acrylonitrile butadiene styrene (ABS), polyethylene (PE), polypropylene (PP), and polyvinyl chloride (PVC) are all thermoplastics.

- a. True
- b. False

.....
 3. | H1 | b | IML Module 3 | 0889 | C | Paul Snellen |

Thermosetting plastic will be destroyed if it is melted.

- a. True
- b. False

.....
4. | H1 | a | IML Module 3 | 0889 | C | Paul Snellen |

Thermoplastic and thermosetting plastic are commonly used in auto body panels.

- a. True
- b. False

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.....
5. | H2 | c | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

Which method is used to repair tears, cracks, and punctures in soft-face bumpers?

- a. Bond repair
- b. Fiberglass repair
- c. Adhesive repair
- d. Vinyl repair

.....
6. | H2 | a | V-TECS | 0889 | C | Ed Shivers & Paul
Snellen |

From which component should fasteners NOT be removed when the fiberglass header panel is removed?

- a. Bumper
- b. Core support
- c. Fender
- d. Grill

.....
7. | H2 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

When estimating damage to bumper covers, the technician should consider whether the repair cost exceeds the replacement cost.

- a. True
- b. False

.....
8. | H2 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

The type of plastic from which a damaged fan shroud is made will be a factor in determining whether it should be repaired or replaced.

- a. True
- b. False

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.....
 9. | H3 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Which solution should be used to clean plastic parts after they are washed with soap and water?

- a. Grease and wax remover
- b. Plastic cleaner
- c. Lacquer thinner
- d. Vinyl protector

.....
10. | H4 | c | IML Module 3 | 0889 | C | Paul Snellen |

Which grit of D. A. paper should be used to remove paint from a plastic panel?

- a. 40
- b. 80
- c. 180
- d. 220

.....
11. | H4 | c | IML Module 3 | 0889 | C | Ed Shivers & Paul Snellen |

Which kind of grinder is used to enlarge a puncture or to taper a gouge in a plastic panel?

- a. Electric grinder
- b. Air grinder
- c. Die grinder
- d. D. A. sander

.....
12. | H4 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul Snellen |

Both airless and hot-air welding guns are used in auto body work.

- a. True
- b. False

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.....
 13. | H4 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

The technician should wear welding goggles when welding with adhesives.

- a. True
- b. False

.....
14. | H5 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

An airless plastic welding gun will weld both thermosetting and ABS plastics.

- a. True
- b. False

.....
15. | H5 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

An airless welding gun causes little warpage when used on a flat surface.

- a. True
- b. False

.....
16. | H5 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

An airless welding gun makes poor weld bonds on thermosetting plastic.

- a. True
- b. False

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.....
 17. | H5 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

An airless welding gun heats too large an area to be used on inner supports.

- a. True
- b. False

.....
18. | H6 | d | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which material is used to repair a plastic panel?

- a. Plastic filler
- b. Fiberglass body filler
- c. Fiberglass resin
- d. Two-part structural adhesive

.....
19. | H6 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Chemical plastic bumper cover fillers should be mixed with a power drill.

- a. True
- b. False

.....
20. | H6 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Chemical fillers produce heat that can cause warpage.

- a. True
- b. False

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.....
 21. | H6 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
 Snellen |

Which two pieces of safety equipment must the technician wear when preparing vinyl bumper covers for the application of chemical fillers?

- a. Safety glasses and rubber gloves
- b. Coveralls and face shield
- c. Particle mask and safety shoes
- d. None of the above

.....
22. | H7 | d | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

How many basic repair methods are there for plastic panels?

- a. 2
- b. 3
- c. 4
- d. 5

.....
23. | H7 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Adhesive fillers can be used to repair dash panels.

- a. True
- b. False

.....
24. | H7 | a | IML Module 3 | 0889 | C | Paul Snellen |

The back of a plastic panel should be reinforced during welding.

- a. True
- b. False

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.....
1. | I1 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which piece of safety equipment should the technician wear when working with fiberglass material?

- a. Proper mask
- b. Head covering
- c. Canvas work shoes
- d. Leather work shoes

.....
2. | I1 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Fiberglass resin should NOT touch bare skin.

- a. True
- b. False

.....
3. | I2 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

A fiberglass panel should be replaced if it is shattered.

- a. True
- b. False

.....
4. | I2 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Both the outer and inner door of a Corvette are likely to have stress cracks.

- a. True
- b. False

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.....
5. | I3 | a | IML Module 3 | 0889 | C | Paul Snellen |

Which solution is used to wash a fiberglass panel before it is prepared for filler?

- a. Detergent and water
- b. Thinner and kerosene
- c. Alcohol and ammonia
- d. None of the above

.....
6. | I3 | a | IML Module 3 | 0889 | C | Paul Snellen |

The inner and outer surface of a fiberglass panel must be thoroughly cleaned with wax and grease remover before repair.

- a. True
- b. False

.....
7. | I3 | a | IML Module 3 | 0889 | C | Paul Snellen |

All loose or broken fiberglass should be removed from a panel before it is repaired.

- a. True
- b. False

.....
8. | I4 | d | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Before it is rebuilt, a fiberglass panel should be washed with which solution?

- a. Grease and wax remover
- b. Aircraft cleaner
- c. Enamel reducer
- d. Soap and water

.....
9. | I4 | d | IML Module 3 | 0889 | C | Paul Snellen |

How many inches beyond the repair should a fiberglass panel be ground off?

- a. 6 to 8
- b. 4 to 6
- c. 3 to 4
- d. 2 to 3

.....
10. | I4 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Most inner panels on Corvettes are made of steel.

- a. True
- b. False

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.....
11. | I5 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which fasteners are used to connect fiberglass panels?

- a. Bonding strips
- b. Sheet metal screw
- c. Rivets
- d. Staples

.....
12. | I5 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Which problem makes it necessary to replace a section of a fiberglass panel?

- a. Shattered matting
- b. Missing curved section
- c. Damaged gelcoat
- d. Chipped paint

.....
13. | I5 | a | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

When a technician is grinding fiberglass, his or her skin should be completely covered.

- a. True
- b. False

.....
14. | I5 | b | IML Module 3 | 0889 | C | Ed Shivers & Paul
Snellen |

Fiberglass resin can be safely mixed in a small, non-ventilated room.

- a. True
- b. False

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.....
1. | J1 | a | IML Module 3 | 0889 | C | Don Reeves |

When replacing a vehicle top, the technician should check glass openings.

- a. True
- b. False

.....
2. | J1 | a | IML Module 3 | 0889 | C | Don Reeves |

Weld-through primers are NOT used in all welding operations.

- a. True
- b. False

.....
3. | J1 | b | IML Module 3 | 0889 | C | Don Reeves |

When removing a quarter panel, which step should the technician do first?

- a. Strip paint from panel
- b. Clean vehicle with soap and water
- c. Clean with grease and wax remover
- d. Disconnect fuel pump

.....
4. | J1 | a | IML Module 3 | 0889 | C | Don Reeves |

Both plug and stitch MIG welding techniques are commonly used on door skins.

- a. True
- b. False

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.....
5. | J2 | a | IML Module 3 | 0889 | C | Don Reeves |

Vehicles should be supported under the suspension during rocker panel replacement.

- a. True
- b. False

.....
6. | J2 | c | IML Module 3 | 0889 | C | Don Reeves |

Which welding process should be used on structural panels?

- a. Stick (arc) welding
- b. Oxyacetylene welding
- c. Mig welding
- d. Resistance spot welding

.....
7. | J2 | a | IML Module 3 | 0889 | C | Don Reeves |

The vehicle's doors should never be removed before replacing rocker panels.

- a. True
- b. False

.....
8. | J2 | c | IML Module 3 | 0889 | C | Don Reeves |

Which of the following panels is NOT welded to the vehicle?

- a. Floor pan
- b. Trunk floor
- c. Fender
- d. Body rail

30

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.....
9. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

Vehicle panels that do NOT contribute significantly to the strength of the vehicle are called cosmetic panels.

- a. True
- b. False

.....
10. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

Cosmetic panels are used on vehicles with frames.

- a. True
- b. False

.....
11. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

A fender is a good example of a cosmetic panel that is bolted on a vehicle.

- a. True
- b. False

.....
12. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

Most cosmetic panels must be aligned after they are replaced.

- a. True
- b. False

.....
13. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

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14. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

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15. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

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- a. True
- b. False

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16. | J3 | a | IML Module 3 | 0889 | C | Fred Smith |

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- b. False

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.....
17. | J4 | a | IML Module 3 | 0889 | C | Fred Smith |

When a panel is sectioned, it is cut at a location other than the seam.

- a. True
- b. False

.....
18. | J4 | d | IML Module 3 | 0889 | C | Fred Smith |

Which tool should be used to cut and clean a panel?

- a. Mig welder
- b. Cold chisel
- c. Oxyacetylene torch
- d. None of the above

.....
19. | J4 | a | IML Module 3 | 0889 | C | Fred Smith |

When sectioning panels, the technician should always wear eye protection.

- a. True
- b. False

.....
20. | J4 | b | IML Module 3 | 0889 | C | Fred Smith |

Floor panels and cowl panels are often sectioned.

- a. True
- b. False

.....
21. | J4 | a | IML Module 3 | 0889 | C | Fred Smith |

When a panel is sectioned, it is cut at a location other than the seam.

- a. True
- b. False

.....
22. | J4 | d | IML Module 3 | 0889 | C | Fred Smith |

Which tool should be used to cut and clean a panel?

- a. Mig welder
- b. Cold chisel
- c. Oxyacetylene torch
- d. None of the above

.....
23. | J4 | a | IML Module 3 | 0889 | C | Fred Smith |

When sectioning panels, the technician should always wear eye protection.

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- b. False

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.....
 24. | J4 | b | IML Module 3 | 0889 | C | Fred Smith |

Floor panels and cowl panels are often sectioned.

- a. True
- b. False

.....
25. | J5 | a | IML Module 3 | 0889 | C | Fred Smith |

Where is the intrusion barrier usually located?

- a. Inside the door assembly
- b. Inside the bumper assembly
- c. Inside the headlight assembly
- d. None of the above

.....
26. | J5 | d | IML Module 3 | 0889 | C | Fred Smith |

How are most intrusion barriers attached to a vehicle?

- a. Hammered into place
- b. Bonded into place
- c. Bolted into place
- d. None of the above

.....
27. | J5 | a | IML Module 3 | 0889 | C | Fred Smith |

Where is the intrusion barrier usually located?

- a. Inside the door assembly
- b. Inside the bumper assembly
- c. Inside the headlight assembly
- d. None of the above

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28. | J5 | d | IML Module 3 | 0889 | C | Fred Smith |

How are most intrusion barriers attached to a vehicle?

- a. Hammered into place
- b. Bonded into place
- c. Bolted into place
- d. None of the above

.....
29. | J6 | a | IML Module 3 | 0889 | C | Fred Smith |

If both the back and front doors have been damaged on one side of the vehicle, the rear door panel should be repaired first.

- a. True
- b. False

.....
30. | J6 | b | IML Module 3 | 0889 | C | Fred Smith |

Bonded door skins are installed without crimping the edges.

- a. True
- b. False

.....
31. | J6 | b | IML Module 3 | 0889 | C | Fred Smith |

When installing a bonded door skin, the technician does NOT have to remove the doors.

- a. True
- b. False

.....
32. | J6 | a | IML Module 3 | 0889 | C | Fred Smith |

Sealer should be applied to bonded door skins when they are replaced.

- a. True
- b. False

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8	Accompanying artwork (ART)

33. | J6 | a | IML Module 3 | 0889 | C | Fred Smith |

If both the back and front doors have been damaged on one side of the vehicle, the rear door panel should be repaired first.

- a. True
- b. False

34. | J6 | b | IML Module 3 | 0889 | C | Fred Smith |

Bonded door skins are installed without crimping the edges.

- a. True
- b. False

35. | J6 | b | IML Module 3 | 0889 | C | Fred Smith |

When installing a bonded door skin, the technician does NOT have to remove the doors.

- a. True
- b. False

36. | J6 | a | IML Module 3 | 0889 | C | Fred Smith |

Sealer should be applied to bonded door skins when they are replaced.

- a. True
- b. False

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.....
1. | K1 | b | IML Module 3 | 0889 | C | Paul Snellen |

Which component is the cosmetic portion of a bumper?

- a. Face bar
- b. Fascia cover
- c. Support bar
- d. Energy absorber

.....
2. | K1 | c | IML Module 3 | 0889 | C | Paul Snellen |

Which term refers to a bumper support bar?

- a. Face bar
- b. Fascia cover
- c. Reinforcement
- d. Rocker bar

.....
3. | K1 | c | IML Module 3 | 0889 | C | Paul Snellen |

Which component is added to a face bar to reduce damage to the front of a vehicle?

- a. Support bar
- b. Energy absorber
- c. Bumper guards
- d. Fascia cover

.....
4. | K1 | d | IML Module 3 | 0889 | C | Paul Snellen |

Which component covers the attaching points of a bumper?

- a. Sight shield
- b. Energy absorber
- c. Support bar
- d. Fascia cover

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.....
5. | K2 | a | IML Module 3 | 0889 | C | Paul Snellen |

One end of a bumper energy absorber is attached to which component?

- a. Frame rail
- b. Sight panel
- c. Support bar
- d. Radiator support

.....
6. | K2 | d | IML Module 3 | 0889 | C | Paul Snellen |

The term "R and R" refers to which procedure?

- a. Repair and replace
- b. Repair and reinstall
- c. Repair and remove
- d. Remove and replace

.....
7. | K2 | b | IML Module 3 | 0889 | C | Paul Snellen |

An energy absorber is designed to prevent a vehicle fuel tank from rupturing.

- a. True
- b. False

.....
8. | K2 | a | IML Module 3 | 0889 | C | Paul Snellen |

If an energy absorber is bent, it should be replaced.

- a. True
- b. False

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.....
 9. | K3 | b | IML Module 3 | 0889 | C | Paul Snellen |

Which cosmetic component is attached to the radiator support and the fenders?

- a. Grille
- b. Fascia
- c. Bumper
- d. Isolator

.....
 10. | K3 | a | IML Module 3 | 0889 | C | Paul Snellen |

Fascia covers are usually found on the front of the vehicle.

- a. True
- b. False

.....
 11. | K3 | b | IML Module 3 | 0889 | C | Paul Snellen |

Fascia covers are usually made of plastic and steel.

- a. True
- b. False

.....
12. | K4 | a | IML Module 3 | 0889 | C | Paul Snellen |

Before it is repaired, a fascia cover should be washed with soap and water.

- a. True
- b. False

.....
13. | K4 | b | IML Module 3 | 0889 | C | Paul Snellen |

Wax and grease remover may damage a fascia cover

- a. True
- b. False

.....
14. | K4 | b | IML Module 3 | 0889 | C | Paul Snellen |

When repairing a damaged fascia cover, the technician should grind off the paint at least 6 inches beyond the repair.

- a. True
- b. False

.....
15. | K4 | a | IML Module 3 | 0889 | C | Paul Snellen |

A gouged or torn fascia cover should be reinforced at its back.

- a. True
- b. False

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.....
1. | L1 | c | IML Module 4 | 0889 | C | Don Reeves |

Which spray gun control determines the spray pattern?

- a. Fluid-adjustment valve
- b. Air valve
- c. Pattern control valve knob
- d. Pressure valve

.....
2. | L1 | a | IML Module 4 | 0889 | C | Don Reeves |

Using a separator-regulator between the main air line and the spray gun will ensure that the gun remains clean and dry.

- a. True
- b. False

.....
3. | L1 | a | VICA | 0889 | C | Don Reeves |

A siphon feed system is often used to repaint an automobile.

- a. True
- b. False

.....
4. | L1 | a | VICA | 0889 | C | Don Reeves |

A spray gun uses air to atomize the paint being sprayed.

- a. True
- b. False

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.....
5. | L2 | a | VICA | 0889 | C | Don Reeves |

How often should a respirator be cleaned?

- a. After each use
- b. Twice a week
- c. Weekly
- d. Monthly

.....
6. | L2 | a | V-TECS | 0889 | C | Don Reeves |

The fresh air mask has a self-contained air supply.

- a. True
- b. False

.....
7. | L2 | b | V-TECS | 0889 | C | Don Reeves |

Which problem can cut off the air supply to a paint mask?

- a. Missing exhaust diaphragm
- b. Clogged filter
- c. Missing pre-filter
- d. Overly tight strap

.....
8. | L2 | a | V-TECS | 0889 | C | Don Reeves |

Wearing an approved mask that is in good working order will protect the technician's lungs while he or she is painting in a spray booth.

- a. True
- b. False

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.....
9. | L3 | c | V-TECS | 0889 | C | Don Reeves |

Which spray gun pressure setting is appropriate for applying a topcoat of acrylic lacquer?

- a. 25 to 35 psi
- b. 35 to 45 psi
- c. 45 to 55 psi
- d. 55 to 65 psi

.....
10. | L3 | d | V-TECS | 0889 | C | Don Reeves |

In which position should the trigger be held while the air pressure is being set on a spray gun?

- a. Closed position
- b. Halfway position
- c. Three-quarter position
- d. Fully opened position

.....
11. | L4 | a | V-TECS | 0889 | C | Don Reeves |

If a spray gun is NOT cleaned properly, paint will accumulate around the valve seat.

- a. True
- b. False

.....
12. | L4 | c | V-TECS | 0889 | C | Don Reeves |

After each use, a spray gun should be wiped off and cleaned with which liquid?

- a. Clean water
- b. Enamel reducer
- c. Lacquer thinner
- d. Mineral spirits

.....
13. | L4 | c | V-TECS | 0889 | C | Don Reeves |

Which problem can cause a spray gun to pulsate?

- a. Loose air cap
- b. Loose packing nut
- c. Worn fluid needle
- d. Worn trigger

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.....
14. | L4 | a | V-TECS | 0889 | C | Don Reeves |

A spray gun should be cleaned after each use.

- a. True
- b. False

.....
15. | L5 | c | V-TECS | 0889 | C | Don Reeves |

When painting in a spray booth, a technician should take what action if the manometers indicate insufficient air flow?

- a. Proceed with caution
- b. Make sure the ventilation system is on
- c. Leave the booth immediately and notify the supervisor
- d. Open the booth doors to let in fresh air

.....
16. | L5 | a | V-TECS | 0889 | C | Don Reeves |

The painting booth should be thoroughly cleaned after each use.

- a. True
- b. False

.....
17. | L5 | d | V-TECS | 0889 | C | Don Reeves |

Which factor would NOT affect the operation of an exhaust system?

- a. Belt slippage
- b. Clogged filters
- c. Improper voltage
- d. High humidity

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.....
18. | L5 | a | V-TECS | 0889 | C | Don Reeves |

A spray booth may be unsafe if the glass around one of its light bulbs is broken.

- a. True
- b. False

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.....
1. | M1 | a | IML Module 4 | 0889 | C | Don Reeves |

Before refinishing a vehicle, the technician must correctly identify the surface to be painted and assess the condition of the existing paint.

- a. True
- b. False

.....
2. | M1 | b | IML Module 4 | 0889 | C | Don Reeves |

Which is NOT an undercoat?

- a. Precoat
- b. Settling
- c. Primers
- d. Primer surfaces

.....
3. | M1 | d | IML Module 4 | 0889 | C | Don Reeves |

When choosing a paint undercoat, the technician should consider which of the following factors?

- a. Type of surface to which the undercoat will be applied
- b. Condition of the surface to which the undercoat will be applied
- c. Type of topcoat to be used with the undercoat
- d. All of the above

.....
4. | M2 | b | IML Module 4 | 0889 | C | Don Reeves |

Chemical stripping should be used on which of the following substrates?

- a. Fiberglass
- b. Steel
- c. Plastic
- d. Rubber

.....
5. | M2 | a | IML Module 4 | 0889 | C | Don Reeves |

When using chemical strippers, the technician should keep a supply of fresh water available to dilute or wash away spilled chemicals.

- a. True
- b. False

.....
6. | M2 | b | IML Module 4 | 0889 | C | Don Reeves |

What is the maximum panel area that should be stripped at one time?

- a. 1/2 square foot
- b. 1 square foot
- c. 1 and 1/2 square feet
- d. 2 square feet

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.....
7. | M2 | b | IML Module 4 | 0889 | C | Don Reeves |

Chemical strippers should NOT be used on auto body surfaces that are badly weathered or cracked.

- a. True
- b. False

.....
8. | M3 | b | IML Module 4 | 0889 | C | Don Reeves |

A vehicle surface should be at least 50 degrees Fahrenheit before it is masked.

- a. True
- b. False

.....
9. | M3 | b | IML Module 4 | 0889 | C | Don Reeves |

When applying masking tape, the technician should stretch the tape tightly so it will shrink back and fit better.

- a. True
- b. False

.....
10. | M3 | a | IML Module 4 | 0889 | C | Don Reeves |

The technician should thoroughly clean and dry a vehicle before masking it.

- a. True
- b. False

.....
11. | M3 | a | IML Module 4 | 0889 | C | Don Reeves |

The technician should fold and tape any pleats in the masking paper.

- a. True
- b. False

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.....
12. | M4 | b | IML Module 4 | 0889 | C | Don Reeves |

Sanding a new panel will inhibit rust and corrosion.

- a. True
- b. False

.....
13. | M4 | a | IML Module 4 | 0889 | C | Don Reeves |

Before a new panel is painted, it should be sanded only with sandpaper recommended by the topcoat manufacturer.

- a. True
- b. False

.....
14. | M4 | b | IML Module 4 | 0889 | C | Don Reeves |

Which undercoat should be applied to bare metal areas on a new panel?

- a. Primer-surfacer
- b. Epoxy primer
- c. Sealer
- d. Adhesion promoter

.....
15. | M4 | b | IML Module 4 | 0889 | C | Don Reeves |

All primer should be removed from a new panel before epoxy primer is applied.

- a. True
- b. False

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.....
16. | M5 | b | IML Module 4 | 0889 | C | Don Reeves |

When preparing a damaged panel for refinishing, the technician should perform which procedure first?

- a. Examine the panel substrate
- b. Wash the panel with detergent
- c. Sand the panel surface
- d. Apply metal conditioner to the panel

.....
17. | M5 | b | IML Module 4 | 0889 | C | Don Reeves |

A damaged area on a panel should be feathered before it is sanded.

- a. True
- b. False

.....
18. | M5 | a | IML Module 4 | 0889 | C | Don Reeves |

Featheredging will prevent a broken paint edge from showing through a new topcoat.

- a. True
- b. False

.....
19. | M5 | b | IML Module 4 | 0889 | C | Don Reeves |

Metal conditioners are not used with conversion coatings.

- a. True
- b. False

.....
20. | M5 | d | IML Module 4 | 0889 | C | Don Reeves |

Which is NOT a hand sanding technique?

- a. Bare metal sanding
- b. Thorough sanding
- c. Light sanding
- d. Belt sanding

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.....
21. | M6 | a | IML Module 4 | 0889 | C | Don Reeves |

Hand sanding should be done in a straight line.

- a. True
- b. False

.....
22. | M6 | b | IML Module 4 | 0889 | C | Don Reeves |

A technician cannot inspect a surface while wet sanding it.

- a. True
- b. False

.....
23. | M6 | b | IML Module 4 | 0889 | C | Don Reeves |

Thoroughly sanding a primer surface will NOT make it smooth and level.

- a. True
- b. False

.....
24. | M7 | a | IML Module 4 | 0889 | C | Don Reeves |

Metal conditioners and conversion coatings are also known as precoats.

- a. True
- b. False

.....
25. | M7 | b | IML Module 4 | 0889 | C | Don Reeves |

Auto body primers are NOT available in lacquer, enamel, or epoxy bases.

- a. True
- b. False

.....
26. | M7 | a | IML Module 4 | 0889 | C | Don Reeves |

When choosing paint undercoats, the technician must consider the type of surface to which the undercoat will be applied.

- a. True
- b. False

.....
27. | M7 | b | IML Module 4 | 0889 | C | Don Reeves |

Primer-surfacer is thinner than water.

- a. True
- b. False

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.....
28. | M8 | a | IML Module 4 | 0889 | C | Don Reeves |

Why is a guide coat applied to a vehicle during refinishing?

- a. To reveal imperfections in the finish work
- b. To provide adhesion for the top coat
- c. To provide a good hold out
- d. To reduce sand-scratch swelling

.....
29. | M8 | b | IML Module 4 | 0889 | C | Don Reeves |

Before a topcoat is applied, a vehicle surface is usually sanded only once.

- a. True
- b. False

.....
30. | M8 | c | IML Module 4 | 0889 | C | Don Reeves |

Which procedure does NOT have to be performed between block sanding and repriming a vehicle surface?

- a. Cleaning of the vehicle surface
- b. Rechecking the masking
- c. Applying the metal conditioners
- d. Mixing the sealers

Scratch putty can be applied to any minor scratches or chips in a panel surface before it is reprimed.

- a. True
- b. False

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.....
32. | M9 | a | IML Module 4 | 0889 | C | Don Reeves |

How much time is required for alkyd enamel and acrylic enamel to dry?

- a. 1 month
- b. 2 months
- c. 3 months
- d. 4 months

.....
33. | M9 | a | IML Module 4 | 0889 | C | Don Reeves |

Water-based paint allows automobile manufacturers to meet federal emission standards.

- a. True
- b. False

.....
34. | M9 | d | IML Module 4 | 0889 | C | Don Reeves |

Which technique is NOT used to apply topcoat?

- a. Mist coat
- b. Single coat
- c. Double coat
- d. Triple coat

When spraying a top coat, the technician should make each pass overlap the previous one by how much?

- a. 40%
- b. 50%
- c. 60%
- d. 70%

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.....
 36. | M10 | c | IML Module 4 | 0889 | C | Don Reeves |

Which additive is NOT used in auto body lacquer paint?

- a. Volatiles
- b. Binder
- c. Catalyst
- d. Pigment

.....
 37. | M10 | a | IML Module 4 | 0889 | C | Don Reeves |

Most General Motors cars use acrylic lacquer as an OEM finish.

- a. True
- b. False

.....
 38. | M10 | a | IML Module 4 | 0889 | C | Don Reeves |

Acrylic lacquer can be used for spot repairs on enamel finishes.

- a. True
- b. False

Which topcoat application technique is used to apply lacquer-based paint?

- a. Tack coat
- b. Single coat
- c. Double coat
- d. Triple coat

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.....
40. | M11 | d | IML Module 4 | 0889 | C | Don Reeves |

Acrylic enamel has which characteristic?

- a. Uses reducer as a vehicle
- b. Hides small imperfections
- c. Dries slowly
- d. All the above

.....
41. | M11 | b | IML Module 4 | 0889 | C | Don Reeves |

Acrylic enamel should NOT be used for panel repairs or overall painting.

- a. True
- b. False

.....
42. | M11 | a | IML Module 4 | 0889 | C | Don Reeves |

Heat applications will speed the drying of acrylic enamel.

- a. True
- b. False

Acrylic enamel is less sensitive to spraying techniques and spray gun settings than acrylic lacquer.

- a. True
- b. False

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.....
44. | M12 | a | IML Module 4 | 0889 | C | Don Reeves |

Which additive would NOT be found in urethane paint systems?

- a. Thinner
- b. Activator
- c. Reducer
- d. Fish eye eliminator

.....
45. | M12 | b | IML Module 4 | 0889 | C | Don Reeves |

Hydroxyls and isocyanates are the two principal base components of polyurethane enamel.

- a. True
- b. False

.....
46. | M12 | b | IML Module 4 | 0889 | C | Don Reeves |

Urethane enamel is easily damaged by the elements.

- a. True
- b. False

.....
47. | M13 | a | IML Module 4 | 0889 | C | Don Reeves |

Basecoat/clearcoat systems come in enamel or lacquer.

- a. True
- b. False

.....
48. | M13 | d | IML Module 4 | 0889 | C | Don Reeves |

Which advantage does a basecoat/clearcoat system provide?

- a. Gives extra-high gloss to the color coat
- b. Prevents spot repairs from buffing through
- c. Prevents the weathering of blend edge spot repairs
- d. All of the above

.....
49. | M13 | d | IML Module 4 | 0889 | C | Don Reeves |

Before a basecoat/clearcoat system is applied, which grit of wet or dry sandpaper should be used to sand a vehicle?

- a. 220
- b. 320
- c. 360
- d. 400

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.....
50. | M13 | b | IML Module 4 | 0889 | C | Don Reeves |

Special adhesion promoter must be applied to an auto body surface before basecoat/clearcoat is applied.

- a. True
- b. False

.....
51. | M14 | b | IML Module 4 | 0889 | C | Don Reeves |

Which topcoat is NOT used in factory applications?

- a. High solid enamel
- b. Alkyd enamel
- c. Water borne enamel
- d. Acrylic urethane

.....
52. | M14 | c | IML Module 4 | 0889 | C | Don Reeves |

Which procedure does NOT produce a correct paint color match?

- a. Changing gun settings
- b. Changing solvent
- c. Extending flash off time
- d. Blending

.....
53. | M14 | a | IML Module 4 | 0889 | C | Don Reeves |

The technician should compound an auto body surface when preparing it for blending.

- a. True
- b. False

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.....
54. | M14 | a | IML Module 4 | 0889 | C | Don Reeves |

Only base colors should be used to tint topcoats.

- a. True
- b. False

.....
55. | M15 | c | IML Module 4 | 0889 | C | Don Reeves |

Which is the proper method for removing chip-resistant coatings?

- a. Applying paint stripper
- b. Applying lacquer thinner
- c. Sanding or grinding
- d. Buffing and scraping

.....
56. | M15 | a | IML Module 4 | 0889 | C | Don Reeves |

There are many different brands of chip-resistant paint.

- a. True
- b. False

.....
57. | M15 | a | IML Module 4 | 0889 | C | Don Reeves |

Chip-resistant coatings are sold as solvent-borne spraying materials.

- a. True
- b. False

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.....
58. | M15 | b | IML Module 4 | 0889 | C | Don Reeves |

Chip-resistant coatings must be applied before the topcoat.

- a. True
- b. False

.....

59. | M16 | a | IML Module 4 | 0889 | C | Don Reeves |

Flexible paints are formed when flexible additives are combined with various color coat systems.

- a. True
- b. False

.....

60. | K16 | c | IML Module 4 | 0889 | C | Don Reeves |

Which grit of wet or dry sandpaper is used to sand a panel before flexible paint is applied?

- a. 220
- b. 320
- c. 400
- d. 600

.....

61. | M16 | b | IML Module 4 | 0889 | C | Don Reeves |

Any quality primer can be used on a panel before a flexible topcoat is applied.

- a. True
- b. False

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.....
62. | M16 | a | IML Module 4 | 0889 | C | Don Roberts |

Many cosmetic, soft-plastic auto body parts are made of resins with flexible characteristics.

- a. True
- b. False

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.....
1. | N1 | a | IML Module 5 | 0889 | C | Fred Smith |

Coarsely threaded bolts are used to hold soft metals together.

- a. True
- b. False

.....
2. | N1 | a | IML Module 5 | 0889 | C | Fred Smith |

Unlike bolts, screws do NOT use nuts.

- a. True
- b. False

.....
3. | N1 | b | IML Module 5 | 0889 | C | Fred Smith |

A slotted threaded nut prevents loosening caused by vibration.

- a. True
- b. False

.....
4. | N1 | a | IML Module 5 | 0889 | C | Fred Smith |

The terms "slotted hex nut" and "castle nut" refer to the same fastener.

- a. True
- b. False

.....
5. | N2 | a | IML Module 5 | 0889 | C | Fred Smith |

A pop rivet is used on panels that can be accessed from only one side.

- a. True
- b. False

.....
6. | N2 | b | IML Module 5 | 0889 | C | Fred Smith |

Blind rivets are usually installed with a pneumatic hammer.

- a. True
- b. False

.....
7. | N2 | b | IML Module 5 | 0889 | C | Fred Smith |

A pop rivet provides very little strength.

- a. True
- b. False

.....
8. | N2 | b | IML Module 5 | 0889 | C | Fred Smith |

Plastic self-locking rivets are often used to attach plastic body parts.

- a. True
- b. False

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.....
 9. | N3 | b | IML Module 5 | 0889 | C | Fred Smith |

Sheet metal screws may have either coarse or fine threads.

- a. True
- b. False

.....
 10. | N3 | a | IML Module 5 | 0889 | C | Fred Smith |

A cap screw looks like a bolt but has no nut.

- a. True
- b. False

.....
 11. | N3 | b | IML Module 5 | 0889 | C | Fred Smith |

Sheet metal screws commonly use UNC threads.

- a. True
- b. False

.....
 12. | N3 | b | IML Module 5 | 0889 | C | Fred Smith |

Cap screws come in a variety of head designs.

- a. True
- b. False

.....
13. | N4 | a | IML Module 5 | 0889 | C | Fred Smith |

Cotter pins are usually used with castle nuts.

- a. True
- b. False

.....
14. | N4 | a | IML Module 5 | 0889 | C | Fred Smith |

Snap rings can be either the external or internal type.

- a. True
- b. False

.....
15. | N4 | a | IML Module 5 | 0889 | C | Fred Smith |

W-clips are easily damaged during removal.

- a. True
- b. False

.....
16. | N4 | b | IML Module 5 | 0889 | C | Fred Smith |

Barrel nuts usually have coarse threads.

- a. True
- b. False

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.....
1. | 01 | b | IML Module 5 | 0889 | C | Fred Smith |

Molding caulking is applied to screws to prevent leaks.

- a. True
- b. False

.....
2. | 01 | a | IML Module 5 | 0889 | C | Fred Smith |

The areas adjacent to moldings are designed to prevent leaks.

- a. True
- b. False

.....
3. | 01 | a | IML Module 5 | 0889 | C | Fred Smith |

Moldings must fit securely to the attaching clips.

- a. True
- b. False

.....
4. | 01 | b | IML Module 5 | 0889 | C | Fred Smith |

When damaged, clips used to attach molding or trim can usually be repaired.

- a. True
- b. False

.....
5. | 02 | a | IML Module 5 | 0889 | C | Fred Smith |

Procedures for removing the drip rail vary from vehicle to vehicle.

- a. True
- b. False

.....
6. | 02 | a | IML Module 5 | 0889 | C | Fred Smith |

Some drip rails are installed with only a sealer.

- a. True
- b. False

.....
7. | 02 | a | IML Module 5 | 0889 | C | Fred Smith |

Screws used to attach drip rails should be caulked.

- a. True
- b. False

.....
8. | 02 | b | IML Module 5 | 0889 | C | Fred Smith |

Some drip rails are designed to be hammered into place.

- a. True
- b. False

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.....
9. | 03 | a | IML Module 5 | 0889 | C | Don Roberts |

An auto body surface should be cleaned with detergent and water before glue-on molding is applied.

- a. True
- b. False

.....
10. | 03 | c | IML Module 5 | 0889 | C | Don Roberts |

When used to bond moldings, adhesive glues take how many minutes to adhere?

- a. 5
- b. 20
- c. 30
- d. 60

.....
11. | 03 | a | IML Module 5 | 0889 | C | Don Roberts |

After-market adhesive molding must be cut and fit to each vehicle panel.

- a. True
- b. False

.....
12. | 03 | b | IML Module 5 | 0889 | C | Don Roberts |

How many hours should the molding be protected from exposure to water after the molding has been glued to a panel?

- a. 12
- b. 24
- c. 36
- d. 48

15.0

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.....
13. | 04 | b | IML Module 5 | 0889 | C | Don Roberts |

Holes for fasteners or retainer clips should be drilled after primer is applied.

- a. True
- b. False

.....
14. | 04 | b | IML Module 5 | 0889 | C | Don Roberts |

Why should a hole be center punched before it is drilled?

- a. To help a dull bit drill more smoothly
- b. To prevent the bit from wandering
- c. To prevent the bit from breaking
- d. All of the above

.....
15. | 04 | b | IML Module 5 | 0889 | C | Don Roberts |

When drilling holes for moldings, the technician should use a bit one size larger than the fasteners.

- a. True
- b. False

.....
16. | 04 | a | IML Module 5 | 0889 | C | Don Roberts |

Trim fasteners should be installed with self-sealing screws.

- a. True
- b. False

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.....
17. | 05 | c | IML Module 5 | 0889 | C | Don Roberts |

When using a weld-on stud gun, the technician should wear which piece of eye-protection equipment?

- a. Helmet
- b. Goggles
- c. Safety glasses
- d. None of the above

.....
18. | 05 | b | IML Module 5 | 0889 | C | Don Roberts |

The weld-on stud gun should be used on which metal surface?

- a. Primered
- b. Bare metal
- c. Painted
- d. Any of the above

.....
19. | 05 | b | IML Module 5 | 0889 | C | Don Roberts |

The weld-on stud gun should NOT be used on HSS.

- a. True
- b. False

.....
20. | 05 | a | IML Module 5 | 0889 | C | Don Roberts |

The weld-on stud gun can be used on heat-shrink metal.

- a. True
- b. False

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.....
1. | P1 | a | IML Module 5 | 0889 | C | Fred Smith |

Before removing a vinyl top, the front and rear glass reveal moldings will have to be removed.

- a. True
- b. False

.....
2. | P1 | b | IML Module 5 | 0889 | C | Fred Smith |

If possible, emblems, name plates, or decorative assemblies should be left on vinyl tops during vinyl top removal.

- a. True
- b. False

.....
3. | P1 | a | IML Module 5 | 0889 | C | Fred Smith |

Rivets must be drilled out of some vinyl roofs before they can be removed.

- a. True
- b. False

.....
4. | P1 | b | IML Module 5 | 0889 | C | Fred Smith |

On most vehicles, the sun roof must be replaced when the vinyl top is replaced.

- a. True
- b. False

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.....
5. | P2 | b | IML Module 5 | 0889 | C | Fred Smith |

Liquid fiber glass is used in many vinyl top repairs.

- a. True
- b. False

.....
6. | P2 | b | IML Module 5 | 0889 | C | Fred Smith |

During vinyl top repairs, a stamp is pressed against the liquid fiber glass to achieve the correct texture.

- a. True
- b. False

.....
7. | P2 | b | IML Module 5 | 0889 | C | Fred Smith |

Liquid fiber glass is difficult to paint after it is used to repair vinyl.

- a. True
- b. False

.....
8. | P2 | b | IML Module 5 | 0889 | C | Fred Smith |

When repaired, vinyl tops usually should be dyed instead of painted.

- a. True
- b. False

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.....
 9. | P3 | a | IML Module 5 | 0889 | C | Fred Smith |

A new vinyl top should be exposed to direct sunlight to remove minor wrinkles.

- a. True
- b. False

.....
 10. | P3 | a | IML Module 5 | 0889 | C | Fred Smith |

Minor wrinkles in a newly installed vinyl roof can be ironed out.

- a. True
- b. False

.....
 11. | P3 | a | IML Module 5 | 0889 | C | Fred Smith |

Special tools are sometimes used to stretch a vinyl top in order to achieve the proper fit.

- a. True
- b. False

.....
12. | P3 | d | IML Module 5 | 0889 | C | Ed Shivers & Paul
Snellen |

Which solution should be used to clean a vinyl top before it is painted?

- a. Liquid vinyl
- b. Dish detergent
- c. Lacquer thinner
- d. None of the above

.....
13. | P3 | b | IML Module 5 | 0889 | C | Ed Shivers & Paul
Snellen |

A vinyl cleaner should be applied to a vinyl surface before it is sanded.

- a. True
- b. False

.....
14. | P3 | b | IML Module 5 | 0889 | C | Ed Shivers & Paul
Snellen |

Some vinyl protectors will cause vinyl split.

- a. True
- b. False

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.....
 15. | P4 | b | IML Module 5 | 0889 | C | Fred Smith |

Decals are never very large.

- a. True
- b. False

.....
 16. | P4 | a | IML Module 5 | 0889 | C | Fred Smith |

Bubbles in decals should be punctured.

- a. True
- b. False

.....
 17. | P4 | a | IML Module 5 | 0889 | C | Fred Smith |

A squeegee is used to remove air under decals.

- a. True
- b. False

.....
 18. | P4 | b | IML Module 5 | 0889 | C | Fred Smith |

Touch up paint should NOT be used on decals.

- a. True
- b. False

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1. | Q1 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

A clothes hanger is a small hook attached to the side roof panel.

- a. True
- b. False

2. | Q1 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

On most vehicles, the rearview mirror is attached to the windshield.

- a. True
- b. False

3. | Q1 | c | IML Module 5 | 0889 | C | Ronald Longnecker |

Which item is used to seal vehicle windows and doors?

- a. Strip lug
- b. Trim panel
- c. Weather stripping
- d. Garnish molding

What is the name of the trim that covers the inside of the roof panel?

- a. Garnish molding
- b. Piller trim
- c. Parcel shelf
- d. Head liner

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.....
5. | Q2 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

Ammonia should NOT be used to clean plain interiors.

- a. True
- b. False

.....
6. | Q2 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

When cleaning stains, the technician should rub from the edge of the stain inward.

- a. True
- b. False

.....
7. | Q2 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Hot water should NOT be used to remove an ordinary stain from vehicle interior.

- a. True
- b. False

.....
8. | Q2 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Plain automobile interior fabric is NOT coated.

- a. True
- b. False

9. | Q3 | d | IML Module 5 | 0889 | C | Ronald Longnecker |

Abrasive cleaners can safely be used on which material?

- a. Genuine leather
- b. Molded plastics
- c. Coated fabrics
- d. None of the above

.....
10. | Q3 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

Coated interior fabrics should be cleaned with cold, soapy water.

- a. True
- b. False

.....
11. | Q3 | d | IML Module 5 | 0889 | C | Harold Harden |

Which interior components are made from molded plastics?

- a. Dashboard
- b. Kick panel
- c. Garnish moldings
- d. All of the above

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.....
12. | Q3 | a | IML Module 5 | 0889 | C | Harold Harden |

Coated automobile interior fabrics include vinyl- or nylon- covered cloth.

- a. True
- b. False

.....
13. | Q4 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

Ammonia should be used to clean a polyurethane surface.

- a. True
- b. False

.....
14. | Q4 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Only a small portion of polyurethane foam interior should be cleaned at one time.

- a. True
- b. False

.....
15. | Q4 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

Almost any mild abrasive cleaner can be used on polyurethane foam interior.

- a. True
- b. False

.....
16. | Q4 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Polyurethane foam is used in which part of the interior?

- a. Headliner
- b. Fire wall liner
- c. Trim panel
- d. Seat cushions

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17. | Q5 | b | IML Module 5 | 0889 | C | Harold Harden |

Painted interior surfaces should be cleaned with a volatile cleaner.

- a. True
- b. False

.....
18. | Q5 | b | IML Module 5 | 0889 | C | Harold Harden |

Steel wool should be used to remove dark stains from painted interior surfaces.

- a. True
- b. False

.....
19. | Q5 | a | IML Module 5 | 0889 | C | Harold Harden |

The steering column surface is usually painted.

- a. True
- b. False

.....
20. | Q5 | b | IML Module 5 | 0889 | C | Harold Harden |

An exterior wax may be used on low-gloss painted surfaces.

- a. True
- b. False

.....
21. | Q6 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

Interior black rubber should be cleaned in the paint room.

- a. True
- b. False

.....
22. | Q6 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

The technician should wear rubber gloves when cleaning black rubber interior.

- a. True
- b. False

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Field	Contents
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.....
 23. | Q7 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Procedures for removing vehicle seats can vary significantly, depending on the type of seat.

- a. True
- b. False

.....
 24. | Q7 | a | IML Module 5 | 0889 | C | Ronald Longnecker |

Seat belts must be removed prior to removing bench-type front seats.

- a. True
- b. False

.....
 25. | Q7 | b | IML Module 5 | 0889 | C | Ronald Longnecker |

On most vehicles, the seat upholstery must be cut or torn before the seats can be removed.

- a. True
- b. False

.....
26. | Q8 | b | IML Module 5 | 0889 | C | Harold Harden |

The nuts that hold the seat track to the vehicle are located inside the vehicle.

- a. True
- b. False

.....
27. | Q8 | d | IML Module 5 | 0889 | C | Harold Harden |

Which items are found in a typical manual seat track mechanism?

- a. RT & L locking lever
- b. Turnbuckle
- c. Latch wire
- d. All of the above

.....
28. | Q8 | c | IML Module 5 | 0889 | C | Harold Harden |

Seat tracks are attached to which part of the vehicle?

- a. Cowl
- b. Restraint system
- c. Floor pan
- d. Frame

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 29. | Q8 | a | IML Module 5 | 0889 | C | Harold Harden |

When replacing an electrical seat track, the technician should consult a service manual.

- a. True
- b. False

.....
30. | Q9 | a | IML Module 5 | 0889 | C | Harold Harden |

Electrical wires can be easily damaged during dashboard removal.

- a. True
- b. False

.....
31. | Q9 | d | IML Module 5 | 0889 | C | Harold Harden |

Dash assemblies serve which purpose?

- a. Contain the instrument package
- b. Provide a mounting point for the steering column
- c. House air conditioning duct work
- d. All of the above

.....
32. | Q9 | a | IML Module 5 | 0889 | C | Harold Harden |

When removing a dash, the technician should disconnect the battery before disconnecting the wiring harness.

- a. True
- b. False

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.....
 33. | Q10 | a | IML Module 5 | 0889 | C | Ronald
 Longnecker |

The battery should be disconnected before the heater wiring assembly is removed.

- a. True
- b. False

.....
 34. | Q10 | b | IML Module 5 | 0889 | C | Harold
 Harden -|

Most dash work can be done without a service manual.

- a. True
- b. False

.....
35. | Q11 | b | IML Module 5 | 0889 | C | H a r o l d
Harden |

Most carpets are one-piece sections that cover the entire floor section.

- a. True
- b. False

.....
36. | Q11 | a | IML Module 5 | 0889 | C | H a r o l d
Harden |

The technician should wear safety glasses when replacing interior carpets.

- a. True
- b. False

.....
37. | Q11 | a | IML Module 5 | 0889 | C | H a r o l d
Harden |

The step plate must be removed before carpet is removed.

- a. True
- b. False

.....
38. | Q11 | b | IML Module 5 | 0889 | C | H a r o l d
Harden |

Tears in interior carpeting cannot be repaired.

- a. True
- b. False

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.....
 39. | Q12 | a | IML Module 5 | 0889 | C | Ronald
 Longnecker |

The seat belt retractor assembly must be replaced as a unit.

- a. True
- b. False

.....
 40. | Q12 | a | IML Module 5 | 0889 | C | Ronald
 Longnecker |

Seat belt assemblies cannot be used in the rear seats of vehicles.

- a. True
- b. False

.....
 41. | Q12 | b | IML Module 5 | 0889 | C | Ronald
 Longnecker |

Seatbelts should be cleaned with a volatile cleaner.

- a. True
- b. False



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.....
1. | R1 | c | IML Module 5 | 0889 | C | Ronald Longnecker |

Why is urethane used in late-model unibody cars?

- a. To reduce assembly time
- b. To reduce replacement costs
- c. To reduce vehicle weight
- d. To reduce body damage during accidents

.....
2. | R1 | c | IML Module 5 | 0889 | C | Ronald Longnecker |

Why is laminated glass used in modern automobiles?

- a. To ensure clear vision
- b. To achieve the best fit
- c. To improve passenger safety
- d. All of the above

.....
3. | R1 | a | IML Module 5 | 0889 | C | Ed Shivers |

Why is vinyl placed between the two sheets of windshield glass?

- a. To keep the glass in one piece if it breaks
- b. To decrease glare
- c. To insulate the passenger compartment
- d. All of the above

.....
4. | R2 | a | IML Module 5 | 0889 | C | Ed Shivers |

When probing for a molding clip, the technician must take great care to keep the molding tool off the edge of the windshield.

- a. True
- b. False

.....
5. | R2 | a | IML Module 5 | 0889 | C | Ed Shivers |

What is the most important thing to do before replacing a reveal molding?

- a. Put clips in their original places
- b. Clean the moldings
- c. Seal the glass
- d. Paint under the molding

.....
6. | R2 | b | IML Module 5 | 0889 | C | Ed Shivers |

Which tool should be used to snap the reveal molding in place?

- a. Metal hammer
- b. Rubber hammer
- c. Chisel
- d. Trim stick

Field	Contents
1	Unique item number
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Field	Contents
5	Date (MMYY)
6	Learning domain (Cognitive, Affective, Psychomotor)
7	Writer(s)/reviewer(s)
8	Accompanying artwork (ART)

.....
7. | R3 | d | IML Module 5 | 0889 | C | Ed Shivers |

Which type of damage must the technician be careful to avoid when removing gasket-type glass?

- a. Tears in the rubber gasket
- b. Broken lacing
- c. Marred paint around the glass
- d. All of the above

.....
8. | R3 | b | IML Module 5 | 0889 | C | Ed Shivers |

Which solution should be used to clean a vehicle after gasket-type glass is replaced?

- a. Lacquer thinner
- b. Grease and wax remover
- c. Soap and water
- d. WD 40

.....
9. | R3 | a | IML Module 5 | 0889 | C | Ed Shivers |

The technician should place the reveal molding in the rubber before installing a gasket-type windshield.

- a. True
- b. False

.....
10. | R3 | a | IML Module 5 | 0889 | C | Ed Shivers |

Lacing helps the gaskets to hold gasket-type glass in place.

- a. True
- b. False

15.

Field	Contents
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8	Accompanying artwork (ART)

.....
11. | R4 | d | IML Module 5 | 0889 | C | Ed Shivers |

Which type of windshield knife is used to cut urethane-type glass?

- a. Hand powered
- b. Pneumatic powered
- c. Electrically powered
- d. All of the above

.....
12. | R4 | b | IML Module 5 | 0889 | C | Ed Shivers |

Urethane-type glass is relatively easy to cut.

- a. True
- b. False

.....
13. | R4 | a | IML Module 5 | 0889 | C | Ed Shivers |

A urethane windshield strengthens the modern unibody automobile.

- a. True
- b. False

.....
14. | R4 | c | IML Module 5 | 0889 | C | Ed Shivers |

When replacing urethane glass, where should the technician place the urethane caulking in order to achieve the neatest results?

- a. On the pinch weld
- b. On the reveal molding
- c. On the outer edge of the glass
- d. None of the above

Field	Contents
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.....
15. | R5 | b | IML Module 5 | 0889 | C | Ed Shivers |

A hot knife should be used to cut butyl-type glass.

- a. True
- b. False

.....
16. | R5 | b | IML Module 5 | 0889 | C | Ed Shivers |

Fishing line is used to cut butyl-type windshield glass around wiper arms.

- a. True
- b. False

.....
17. | R6 | a | IML Module 5 | 0889 | C | Ed Shivers |

Cleaning primer gives glass a good bonding surface during application of a rear-view mirror bracket.

- a. True
- b. False

.....
18. | R6 | b | IML Module 5 | 0889 | C | Ed Shivers |

Usually one drop of adhesive is used to attach the rearview mirror bracket to the windshield.

- a. True
- b. False

.....
19. | R6 | a | IML Module 5 | 0889 | C | Ed Shivers |

Which kind of tape should be used to mark the point on the windshield where the rearview mirror will be attached?

- a. Masking tape
- b. Magnetic tape
- c. Electrical tape
- d. Scotch tape

Field	Contents
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.....
20. | R7 | b | IML Module 5 | 0889 | C | Ed Shivers |

Molding clips should always be thrown away after they have been removed.

- a. True
- b. False

.....
21. | R7 | a | IML Module 5 | 0889 | C | Ed Shivers |

The inside door handle should be replaced in its original location so that the arm rest will fit properly.

- a. True
- b. False

.....
22. | R7 | a | IML Module 5 | 0889 | C | Ed Shivers |

When removing the inside door handle on a 1979 Chevrolet, the technician should slip the clip tool under which component?

- a. Handle grip
- b. Trim pad
- c. Floor board
- d. None of the above

.....
23. | R8 | a | IML Module 5 | 0889 | C | Don Roberts |

To gain access to interior door components, the technician must remove the water deflector.

- a. True
- b. False

.....
24. | R8 | b | IML Module 5 | 0889 | C | Don Roberts |

The door trim panel can be removed only if the window glass has been rolled up.

- a. True
- b. False

.....
25. | R8 | b | IML Module 5 | 0889 | C | Ed Shivers |

When removing a trim pad, the technician should remove the door and window handle after removing the trim pad screws.

- a. True
- b. False

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.....
 26. | R9 | b | IML Module 5 | 0889 | C | Don Roberts |

The door glass must be rolled down before the lock cylinder can be replaced.

- a. True
- b. False

.....
 27. | R9 | a | IML Module 5 | 0889 | C | Don Roberts |

Lock cylinders are usually held in place with a retaining clip.

- a. True
- b. False

.....
 28. | R9 | c | IML Module 5 | 0889 | C | Don Roberts |

Which tools are commonly used during lock cylinder removal?

- a. Metal or rubber mallet
- b. C-clamp or vise
- c. Screw driver or pliers
- d. None of the above

.....
29. | R9 | b | IML Module 5 | 0889 | C | Don Roberts |

Most lock cylinder problems are the result of bent linkage rods.

- a. True
- b. False

Field	Contents	Field	Contents
1	Unique item number	5	Date (MMYY)
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3	Letter of correct answer	7	Writer(s)/reviewer(s)
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.....
30. | R10 | d | IML Module 5 | 0889 | C | Don Roberts |

Which type of glass is used in the rear and side windows of almost all vehicles manufactured today?

- a. Laminated
- b. Solid laminated
- c. Temper laminated
- d. Solid tempered

.....
31. | R10 | d | IML Module 5 | 0889 | C | Don Roberts |

Which device is used to hold the window glass to the door regulator?

- a. Cam rollers
- b. Retaining clips
- c. Adhesive strips
- d. None of the above

.....
32. | R10 | c | IML Module 5 | 0889 | C | Don Roberts |

Which tool is NOT used when removing a door glass?

- a. Mirror bracket wrench
- b. Door panel tool
- c. Windshield cut-out knife
- d. Door handle clip tool

.....
33. | R10 | a | IML Module 5 | 0889 | C | Don Roberts |

The door glass must be removed before the window regulator can be removed.

- a. True
- b. False

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.....
 34. | R11 | d | IML Module 5 | 0889 | C | Don Roberts |

Which component must be removed before the manual window regulator can be removed?

- a. Door glass
- b. Door panel
- c. Center division channel
- d. All of the above

.....
 35. | R11 | d | IML Module 5 | 0889 | C | Don Roberts |

From which area on the door can a regulator assembly be removed?

- a. Upper
- b. Lower
- c. Both upper and lower
- d. Inside of the door panel

.....
36. | R11 | b | IML Module 5 | 0889 | C | Don Roberts |

When the regulator assembly is unbolted, the spring tensioner can easily break the glass.

- a. True
- b. False

.....
37. | R11 | a | IML Module 5 | 0889 | C | Don Roberts |

The regulator assembly must be purchased as a complete unit.

- a. True
- b. False

Field	Contents
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.....
 1. | S1 | c | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Which task would an auto body technician NOT typically be required to perform?

- a. Reading a wiring diagram
- b. Testing a circuit
- c. Rebuilding an alternator
- d. Soldering a wire

.....
 2. | S1 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

An electrical condenser stores voltage.

- a. True
- b. False

.....
 3. | S1 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

A wiring harness is a system of wires routed to different electrical components on the automobile.

- a. True
- b. False

.....
4. | S2 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Batteries are used to store electricity.

- a. True
- b. False

.....
5. | S2 | c | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

A wet cell battery contains which solution?

- a. Hydrochloric acid
- b. Hydrofluoric acid
- c. Electrolyte
- d. All of the above

.....
6. | S2 | d | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which process occurs when a battery discharges?

- a. Battery case rusts
- b. Battery cables fray
- c. Battery post melts
- d. Battery plates combine with acid

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.....
7. | S3 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

When soldering a wire to a terminal, the technician should cover the entire terminal with solder.

- a. True
- b. False

.....
8. | S3 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Solid wire should be spliced to stranded wire in order to achieve the greatest conductivity.

- a. True
- b. False

.....
9. | S3 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

A brass hammer should be used to crimp a solderless terminal to a wire.

- a. True
- b. False

.....
10. | S3 | c | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

How should the technician attach two ends of multi-strand wire before soldering them together?

- a. Clamp the ends together
- b. Tape the ends together
- c. Twist the ends together
- d. None of the above

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.....
1. | T1 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which component is the main part of the taillight assembly?

- a. Pivot bushing
- b. Lamp body
- c. Battery
- d. Support

.....
2. | T1 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

The technician may have to remove the interior trim panels to gain access to the taillight assembly.

- a. True
- b. False

.....
3. | T1 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

If replacing the bulb does NOT make a malfunctioning taillight come on, the technician should trouble shoot the electrical circuit.

- a. True
- b. False

.....
4. | T1 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

A rubber seal is used to seal the taillight body against the car body.

- a. True
- b. False

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Field	Contents
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.....
5. | T2 | b | V-TECS | 0889 | C | Harold Harden & Ronald Longnecker |

Which component is removed first during headlight installation?

- a. Cover
- b. Door
- c. Grill
- d. Valance

.....
6. | T2 | a | V-TECS | 0889 | C | Harold Harden & Ronald Longnecker |

Which problem can cause one headlight to be on dim while the other is on bright?

- a. The sealed beam has a bad ground
- b. The sealed beam is full of water
- c. The sealed beam is out of adjustment
- d. The sealed beam unit is cracked

.....
7. | T2 | b | V-TECS | 0889 | C | Harold Harden & Ronald Longnecker |

Sealed-beam headlights stamped with a "2" should be used only as fog lights.

- a. True
- b. False

.....
8. | T2 | b | V-TECS | 0889 | C | Harold Harden & Ronald
Longnecker |

Sealed-beam headlights stamped with a "1" can be used as both low-
and high-beam lights.

- a. True
- b. False

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.....
 9. | T3 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Mechanical headlights and covers are opened and closed with either
 a vacuum or electrical actuator.

- a. True
- b. False

.....
 10. | T3 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Vacuum-operated headlights and covers use coded vacuum hoses.

- a. True
- b. False

.....
 11. | T3 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Vacuum-operated headlights and covers use electrical valves.

- a. True
- b. False

.....
12. | T3 | c | IML Module 6 | 0889 | C | Haro Harden &
Ronald Longnecker |

Which component is NOT included in the mechanical headlight assembly.

- a. Headlight door
- b. Support
- c. Counterweight
- d. Actuator

.....
13. | T3 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Mechanical headlights can be serviced when the headlight doors are closed.

- a. True
- b. False

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Field	Contents
1	Unique item number
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.....
 14. | T4 | b | V-TECS | 0889 | C | Harold Harden & Ronald
 Longnecker |

To adjust a headlight up or down, the technician should turn the side adjustment.

- a. True
- b. False

.....
 15. | T4 | a | V-TECS | 0889 | C | Harold Harden & Ronald
 Longnecker |

Which type of collision damage usually requires a headlight alignment?

- a. Front-end collision
- b. Left-side collision
- c. Rear-end collision
- d. Right-side collision

.....
 16. | T4 | b | V-TECS | 0889 | C | Harold Harden & Ronald
 Longnecker |

How many adjusting screws are on each sealed-beam headlight?

- a. 1
- b. 2
- c. 3
- d. 4

.....
17. | T4 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

The aiming screen should be 5 feet from the car during headlight adjustment.

- a. True
- b. False

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Field	Contents
1	Unique item number
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.....
1. | U1 | c | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

What is the first step in removing a radiator?

- a. Remove air conditioning condenser
- b. Remove grill
- c. Drain radiator
- d. Remove radiator bolts

.....
2. | U1 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

The mechanical fan shroud can be left on the radiator after the radiator has been removed.

- a. True
- b. False

.....
3. | U2 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Belt tension should be manually checked at the shortest intervals between pulleys.

- a. True
- b. False

.....
4. | U2 | c | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which problem does NOT result from loose belt tension?

- a. Noisy belt
- b. Premature belt wear
- c. Premature bearing wear
- d. Inoperative accessories

.....
5. | U2 | d | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which problem could be detected during fan-belt inspection?

- a. Hard glazing
- b. Splitting
- c. Fraying
- d. All of the above

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Field	Contents
1	Unique item number
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.....
6. | U2 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

A tension gauge can be used to check fan-belt tension.

- a. True
- b. False

.....
7. | U2 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which tools should be used to disconnect automatic transmission lines from the radiator?

- a. Pipe wrenches
- b. Line wrenches
- c. Hose clamp pliers
- d. Visegrips

.....
8. | U2 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Radiators must be removed before they can be checked for leaks.

- a. True
- b. False

.....
9. | U3 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

The boiling point of liquid inside the cooling system decreases as pressure within the cooling system decreases.

- a. True
- b. False

.....
10. | U3 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Antifreeze in engine coolant should register 10°F below the lowest expected temperature.

- a. True
- b. False

.....
11. | U3 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which tool is used to test engine coolant leaks?

- a. Cadmium-tip tester
- b. Pressure tester
- c. Bourdon tube
- d. Antifreeze hydrometer

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.....
 12. | U3 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

On a vehicle with a coolant recovery system, the engine should be at operating temperature when the antifreeze level is tested.

- a. True
- b. False

.....
13. | U4 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Thermoclutch cooling fans are usually used on vehicles with transverse-mounted engines.

- a. True
- b. False

.....
14. | U4 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

When a thermoclutch fan is cold, the fan will free wheel.

- a. True
- b. False

.....
15. | U4 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

On most vehicles, electric cooling fan motors are controlled by a thermostat.

- a. True
- b. False

.....
16. | U4 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

When operating at high speeds, flexible fan blades conserve fan motor horsepower.

- a. True
- b. False

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.....
 17. | U5 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Accordion-type radiator hoses are used on most new cars.

- a. True
- b. False

.....
 18. | U5 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Heater hoses are longer than radiator hoses.

- a. True
- b. False

.....
 19. | U5 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

An important function of the radiator is to reduce the time required to bring the engine to operating temperature.

- a. True
- b. False

.....
20. | U5 | d | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Which problem is a typical sign of radiator hose deterioration?

- a. Cracking of the hose
- b. Ballooning of the hose
- c. Hardening of the hose
- d. All of the above

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Field	Contents
1	Unique item number
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.....
1. | V1 | b | IML Module 6 | 0889 | C | Harold Harden
& Ronald Longnecker |

In an automotive air conditioning system, the accumulator is usually bolted to the condenser.

- a. True
- b. False

.....
2. | V1 | b | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

Refrigerant oil is usually of the same thickness and weight as motor oil.

- a. True
- b. False

.....
3. | V1 | b | IML Module 6 | 0889 | C | Ronald Longnecker
& Harold Harden |

In an automotive air conditioning system, the condenser is usually mounted on the fire wall.

- a. True
- b. False

.....
4. | V1 | d | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

What is the function of the receiver-drier in an automotive air conditioning system?

- a. Stores liquid refrigerant
- b. Removes moisture from refrigerant
- c. Filters moisture and dirt
- d. All of the above

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Field	Contents
1	Unique item number
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.....
 5. | V2 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

What is the first step in replacing a condenser in an automotive air conditioning system?

- a. Remove condenser mounting screws
- b. Discharge refrigerant from the system
- c. Disconnect system inlet and outlet lines
- d. Remove fan and radiator

.....
 6. | V2 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Oil should be added to the condenser after it has been installed.

- a. True
- b. False

.....
 7. | V2 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

After a condenser has been installed, its inlet and outlet fittings must be lubricated.

- a. True
- b. False

.....
8. | V2 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

After condenser lines have been disconnected, they should be plugged or capped.

- a. True
- b. False

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Field	Contents
1	Unique item number
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4	Source (author, year of publication)

Field	Contents
5	Date (MMYY)
6	Learning domain (Cognitive, Affective, Psychomotor)
7	Writer(s)/reviewer(s)
8	Accompanying artwork (ART)

.....
 9. | V3 | c | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

What is the first step in removing the compressor from an automotive air conditioning system?

- a. Remove the compressor from the mounting bracket
- b. Remove belt
- c. Discharge refrigerant from system
- d. Remove oil from the compressor

.....
 10. | V3 | d | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

What should be done if impurities are found in an air conditioning compressor?

- a. Flush the compressor with refrigerant
- b. Add new compressor oil
- c. Rebuild the compressor
- d. Discard the compressor

.....
 11. | V3 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

When removing and reinstalling an air conditioning compressor, the technician should wear safety glasses.

- a. True
- b. False

.....
12. | V4 | b | IML Module 6 | 0889 | C | Fred Smith |

Soap and water is commonly used to find refrigerant leaks.

- a. True
- b. False

.....
13. | V4 | b | IML Module 6 | 0889 | C | Fred Smith |

Refrigerant leaks often cause engine overheating.

- a. True
- b. False

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.....
 14. | V5 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

A small leak in a high-pressure air conditioning hose can usually be patched.

- a. True
- b. False

.....
 15. | V5 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

If an evaporator develops a leak, it should be replaced.

- a. True
- b. False

.....
 16. | V5 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

If an air conditioning hose is leaking, the technician should first check for a damaged O-ring or damaged flare.

- a. True
- b. False

.....
17. | V5 | b | IML Module 6 | 0689 | C | Harold Harden &
Ronald Longnecker |

What type of injury can result from R-12 touching the skin?

- a. Burn
- b. Frostbite
- c. Abrasion
- d. Cut

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Field	Contents
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.....
 18. | V6 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Why is a vacuum applied to an air conditioning system during evacuation?

- a. To remove moisture from the system
- b. To lubricate the system
- c. To seal any holes in the system
- d. All of the above

.....
 19. | V6 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

Liquid refrigerant can damage a compressor.

- a. True
- b. False

.....
 20. | V6 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

A technician should NOT attempt to charge an air conditioning system unless he or she knows the system's capacity.

- a. True
- b. False

.....
21. | V6 | a | IML Module 6 | 0889 | C | Harold Harden &
Ronald Longnecker |

The system operating method of charging an air conditioner requires that refrigerant be added to the system's low side.

- a. True
- b. False

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.....
 22. | V7 | b | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

A halide leak detector should NOT be used to check air conditioning hoses for leaks.

- a. True
- b. False

.....
 23. | V7 | a | IML Module 6 | 0889 | C | Harold Harden &
 Ronald Longnecker |

A check of an air conditioning system should always begin with a visual inspection.

- a. True
- b. False

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.....
1. | W1 | d | IML Module 7 | 0889 | C | Don Roberts |

Which component helps to prevent a vehicle from tipping in a turn?

- a. Coil spring
- b. Lower control arm
- c. Shock absorber
- d. Sway bar

.....
2. | W1 | a | IML Module 7 | 0889 | C | Don Roberts |

A vehicle's wheels rotate on a spindle.

- a. True
- b. False

.....
3. | W1 | c | IML Module 7 | 0889 | C | Don Roberts |

Ball joints are part of which system?

- a. Frame rear
- b. Unibody front
- c. Frame front
- d. Unibody rear

.....
4. | W1 | b | IML Module 7 | 0889 | C | Don Roberts |

Which function does the MacPherson strut serve?

- a. Connects the wheel to the control arm
- b. Dampens jounce and rebound
- c. Lubricates the spindle
- d. Allows for the horizontal movement of the suspension

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Field	Contents
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.....
5. | W2 | a | IML Module 7 | 0889 | C | Don Roberts |

Leaf springs are a part of which system?

- a. Frame rear
- b. Unibody front
- c. Frame front
- d. Unibody rear

.....
6. | W2 | a | IML Module 7 | 0889 | C | Don Roberts |

The main difference between the MacPherson strut suspension and the modified MacPherson strut suspension is the location of the spring.

- a. True
- b. False

.....
7. | W2 | a | IML Module 7 | 0889 | C | Don Roberts |

The rear of a front-wheel-drive vehicle is usually supported by a strut and spring.

- a. True
- b. False

.....
8. | W2 | b | IML Module 7 | 0889 | C | Don Roberts |

There is no control arm on a rear suspension.

- a. True
- b. False

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.....
9. | W3 | c | IML Module 7 | 0889 | C | Don Roberts |

Which component is NOT removed when the short-arm, long-arm suspension is removed?

- a. Tire
- b. Shock
- c. Cross member
- d. Coil spring

.....
10. | W3 | b | IML Module 7 | 0889 | C | Don Roberts |

When removing a front coil spring, the technician must remove the lower control arm before installing the spring depressor.

- a. True
- b. False

.....
11. | W3 | b | IML Module 7 | 0889 | C | Don Roberts |

A spring depressor is NOT needed during removal of a MacPherson strut from the front suspension.

- a. True
- b. False

.....
12. | W4 | a | IML Module 7 | 0889 | C | Don Roberts |

An independent suspension on a rear-wheel-drive vehicle can be removed as a complete assembly.

- a. True
- b. False

.....
13. | W4 | b | IML Module 7 | 0889 | C | Don Roberts |

Rear suspensions on front-wheel-drive and rear-wheel-drive vehicles are removed as complete assemblies.

- a. True
- b. False

.....
14. | W4 | b | IML Module 7 | 0889 | C | Don Roberts |

A spring depressor is NOT needed during installation of a MacPherson strut on a rear suspension system.

- a. True
- b. False

.....
15. | W4 | a | IML Module 7 | 0889 | C | Don Roberts |

Each side of a MacPherson strut assembly can be installed independently.

- a. True
- b. False

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.....
16. | W5 | a | IML Module 7 | 0889 | C | Don Roberts |

A transverse-mounted engine is removed from underneath the vehicle.

- a. True
- b. False

.....
17. | W5 | b | IML Module 7 | 0889 | C | Don Roberts |

The cradle assembly must be removed before a transverse-mounted engine is removed.

- a. True
- b. False

.....
18. | W5 | b | IML Module 7 | 0889 | C | Don Roberts |

All suspension parts must be installed on a vehicle before a transverse-mounted engine can be installed.

- a. True
- b. False

.....
19. | W6 | b | IML Module 7 | 0889 | C | Fred Smith |

When removing an upper control arm from a short and long arm (SLA) suspension, the technician does NOT need to remove the ball joint.

- a. True
- b. False

.....
20. | W6 | a | IML Module 7 | 0889 | C | Fred Smith |

The shock absorber is removed from the lower control arm on a short and long arm suspension.

- a. True
- b. False

.....
21. | W6 | a | IML Module 7 | 0889 | C | Fred Smith |

A spring compressor is sometimes used when removing both control arms.

- a. True
- b. False

.....
22. | W6 | b | IML Module 7 | 0889 | C | Fred Smith |

Torsion bar springs are usually used on short and long arm (SLA) suspension systems.

- a. True
- b. False

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.....
23. | W7 | d | IML Module 7 | 0889 | C | Don Roberts |

Which component is found on both conventional and rack-and-pinion steering systems?

- a. Center link
- b. Idler arm
- c. Pitman arm
- d. Tie rod

.....
24. | W7 | a | IML Module 7 | 0889 | C | Don Roberts |

Rack-and-pinion steering systems were commonly used on cars after 1980.

- a. True
- b. False

.....
25. | W7 | b | IML Module 7 | 0889 | C | Don Roberts |

Which gear is NOT used in a conventional steering system?

- a. Sector gear
- b. Rack gear
- c. Steering gear
- d. Worm gear

.....
26. | W7 | d | IML Module 7 | 0889 | C | Don Roberts |

Which component is NOT used in a conventional steering system?

- a. Idler arm
- b. Pitman arm
- c. Steering arm
- d. Pinion arm

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.....
 27. | W8 | a | IML Module 7 | 0889 | C | Don Roberts |

Which procedure is NOT performed during an alignment on a four-wheel-drive vehicle?

- a. Establish vehicle radius line
- b. Establish vehicle center line
- c. Establish wheel center line
- d. Establish trust line

.....
 28. | W8 | b | IML Module 7 | 0889 | C | Don Roberts |

On front-wheel-drive vehicles, the rear tires must be aligned before the front.

- a. True
- b. False

.....
 29. | W8 | a | IML Module 7 | 0889 | C | Don Roberts |

When aligned properly, a front-wheel-drive vehicle's front and back tires form a square.

- a. True
- b. False

.....
30. | W8 | a | IML Module 7 | 0889 | C | Don Roberts |

The toe-in can be set on some front-wheel-drive vehicles.

- a. True
- b. False

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Field	Contents
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.....
31. | W9 | d | IML Module 7 | 0889 | C | Don Roberts |

Which problem usually cannot be diagnosed by suspension quick checks?

- a. Pulling to the right
- b. Poor returns after turns
- c. Wandering
- d. Bouncing

.....
32. | W9 | a | IML Module 7 | 0889 | C | Don Roberts |

When checking a damaged vehicle for steering problems, the technician should first conduct a visual inspection of the vehicle.

- a. True
- b. False

.....
33. | W9 | b | IML Module 7 | 0889 | C | Don Roberts |

When performing a suspension quick check, the technician should check vehicle jounce before checking the camber.

- a. True
- b. False

.....
34. | W9 | a | IML Module 7 | 0889 | C | Don Roberts |

The main reason for performing suspension quick checks is to distinguish between body misalignment and suspension component damage.

- a. True
- b. False

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.....
 35. | W10 | a | IML Module 7 | 0889 | C | Fred Smith |

Bent power steering pulleys should be replaced.

- a. True
- b. False

.....
 36. | W10 | b | IML Module 7 | 0889 | C | Fred Smith |

Power steering hoses are often repaired by splicing.

- a. True
- b. False

.....
 37. | W10 | a | IML Module 7 | 0889 | C | Fred Smith |

Power steering hoses should be NOT be allowed to rest against engine parts.

- a. True
- b. False

.....
38. | W11 | b | IML Module 7 | 0889 | C | Fred Smith |

Damaged brake components should be repaired instead of being replaced.

- a. True
- b. False

.....
39. | W11 | b | IML Module 7 | 0889 | C | Fred Smith |

Before a MacPherson strut is replaced, the brakes must be removed.

- a. True
- b. False

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.....
40. | W12 | c | IML Module 7 | 0889 | C | Don Roberts |

Which problem causes the edges of a tire to wear excessively?

- a. Improper caster
- b. Improper camber
- c. Under-inflation
- d. Over-inflation

.....
41. | W12 | b | IML Module 7 | 0889 | C | Don Roberts |

Which problem causes a tire to wear excessively on one side?

- a. Improper caster
- b. Improper camber
- c. Under-inflation
- d. Over-inflation

.....
42. | W12 | d | IML Module 7 | 0889 | C | Don Roberts |

Which problem causes a tire to wear excessively in the center?

- a. Improper caster
- b. Improper camber
- c. Under-inflation
- d. Over-inflation

.....
43. | W12 | a | IML Module 7 | 0889 | C | Don Roberts |

If a tire is out of balance, excessive wear may result.

- a. True
- b. False

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Field	Contents
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.....
1. | X1 | c | IML Module 7 | 0889 | C | Don Roberts |

Which type of vehicle frame is constructed so that all the components support each other?

- a. Perimeter
- b. Combination
- c. Unitized
- d. Hourglass

.....
2. | X1 | b | IML Module 7 | 0889 | C | Don Roberts |

Which advantage is offered by the unitized vehicle frame?

- a. More strength
- b. Less weight
- c. Increased aerodynamics
- d. All of the above

.....
3. | X1 | b | IML Module 7 | 0889 | C | Don Roberts |

The hourglass frame is primarily used on large passenger cars.

- a. True
- b. False

.....
4. | X1 | b | IML Module 7 | 0889 | C | Don Roberts |

The combination frame is welded to the vehicle body.

- a. True
- b. False

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.....
5. | X2 | b | IML Module 7 | 0889 | C | Don Roberts |

In most vehicles, the engine is mounted in the torque box area.

- a. True
- b. False

.....
6. | X2 | b | IML Module 7 | 0889 | C | Don Roberts |

To help support engine weight, front rails are bolted on the unitized body.

- a. True
- b. False

.....
7. | X2 | b | IML Module 7 | 0889 | C | Don Roberts |

When lifting a vehicle, the technician should place the jack under the rocker panel pinch weld.

- a. True
- b. False

.....
8. | X2 | b | IML Module 7 | 0889 | C | Don Roberts |

A true alloy consists of only one type of metal.

- a. True
- b. False

.....
9. | X3 | b | IML Module 7 | 0889 | C | Don Roberts |

What kind of damage can cause the cowl to be lower than the rest of the vehicle?

- a. Mash
- b. Sag
- c. Sideways
- d. Twist

.....
10. | X3 | a | IML Module 7 | 0889 | C | Don Roberts |

What kind of damage can cause the vehicle to be shorter than factory specifications?

- a. Mash
- b. Sag
- c. Sideways
- d. Twist

.....
11. | X3 | c | IML Module 7 | 0889 | C | Don Roberts |

What kind of damage can cause one section of the vehicle to be pushed to one side of the center line?

- a. Mash
- b. Sag
- c. Sideways
- d. Twist

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.....
12. | X3 | d | IML Module 7 | 0889 | C | Don Roberts |

What kind of damage can cause one corner of the vehicle's center section to be higher than the opposite corner?

- a. Mash
- b. Sag
- c. Sideways
- d. Twist

.....
13. | X4 | d | IML Module 7 | 0889 | C | Don Roberts |

Which measurement will NOT be found in a unibody specification manual?

- a. Datum line
- b. Center line
- c. Datum distance
- d. Center distance

.....
14. | X4 | c | IML Module 7 | 0889 | C | Don Roberts |

Which term refers to the length of a vehicle?

- a. Datum line
- b. Center line
- c. Datum distance
- d. Center distance

.....
15. | X4 | a | IML Module 7 | 0889 | C | Don Roberts |

Both metric and standard dimensions are listed in all unibody specification manuals.

- a. True
- b. False

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.....
16. | X4 | b | IML Module 7 | 0889 | C | Don Roberts |

Vehicle manufacturers put point-to-point holes in the unibody undercarriage to allow for easy measuring during repairs.

- a. True
- b. False

.....
17. | X5 | b | IML Module 7 | 0889 | C | Don Roberts |

High-strength steel is easily straightened.

- a. True
- b. False

.....
18. | X5 | c | IML Module 7 | 0889 | C | Don Roberts |

In what year did American car manufacturers introduce high-strength steel?

- a. 1976
- b. 1978
- c. 1980
- d. 1982

.....
19. | X5 | a | IML Module 7 | 0889 | C | Don Roberts |

The use of high-strength steel reduces the weight of the automobile.

- a. True
- b. False

.....
20. | X5 | a | IML Module 7 | 0889 | C | Don Roberts |

When damaged, ultra-high-strength steel usually cannot be repaired.

- a. True
- b. False

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.....
21. | X6 | d | IML Module 7 | 0889 | C | Don Roberts |

What is another name for self-centering gauges?

- a. Frame gauges
- b. Datum gauges
- c. Measuring systems
- d. All of the above

.....
22. | X6 | b | IML Module 7 | 0889 | C | Don Roberts |

Which kind of damage is indicated when all but one of the datum gauges and sighting pins line up?

- a. Sag
- b. Sideways
- c. Twist
- d. Mash

.....
23. | X6 | d | IML Module 7 | 0889 | C | Don Roberts |

What gauge is used with the datum gauge to measure distance?

- a. Dedicated fixtures
- b. Universal measuring system
- c. Unibody bench
- d. Tram gauge

.....
24. | X6 | b | IML Module 7 | 0889 | C | Don Roberts |

Self-centering gauges can be used to measure nonsymmetrical vehicles.

- a. True
- b. False

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Field	Contents
1	Unique item number
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.....
 25. | X7 | b | IML Module 7 | 0889 | C | Fred Smith |

A tram gauge is used to measure vehicle damage for estimates.

- a. True
- b. False

.....
 26. | X7 | a | IML Module 7 | 0889 | C | Fred Smith |

Before a tram gauge is used to estimate damage, the vehicle should be as level as possible.

- a. True
- b. False

.....
 27. | X7 | a | IML Module 7 | 0889 | C | Fred Smith |

A tram gauge is generally used in the repair of frame-body vehicles.

- a. True
- b. False

.....
28. | X7 | a | IML Module 7 | 0889 | C | Fred Smith |

Before a tram gauge is used to estimate damage, all the vehicle's broken glass should taped.

- a. True
- b. False

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.....
 29. | X8 | a | IML Module 7 | 0889 | C | Doug Anderson |

If the pointer of the self-centering gauge is out of position, the vehicle is NOT dimensionally correct.

- a. True
- b. False

.....
 30. | X8 | a | IML Module 7 | 0889 | C | Doug Anderson |

When the upper bridge is installed, the strut tower and the center line can be established.

- a. True
- b. False

.....
31. | X9 | a | IML Module 7 | 0889 | C | Doug Anderson |

When used with a dedicated bench measuring system, the fixtures provide the means of taking measurements.

- a. True
- b. False

.....
32. | X9 | a | IML Module 7 | 0889 | C | Doug Anderson |

Upper body damage cannot be easily measured with a dedicated bench measuring system.

- a. True
- b. False

.....
33. | X9 | a | IML Module 7 | 0889 | C | Doug Anderson |

When setting up a dedicated bench measuring system, the technician should use a fixture diagram to place the fixtures in the proper locations.

- a. True
- b. False

.....
34. | X9 | a | IML Module 7 | 0889 | C | Doug Anderson |

If the control point fits the fixture, the length, height, and width of the point is correct.

- a. True
- b. False

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1. | Y1 | a | V-TECS | 0F89 | C | Doug Anderson |

What is the most important step in attaching pulling equipment to a damaged vehicle?

- a. Anchoring the vehicle
- b. Centering the equipment
- c. Checking for a bent axle
- d. Removing the wheels

2. | Y1 | a | V-TECS | 0889 | C | Doug Anderson |

Which gauge must be attached to the wheel when pulling a strut tower?

- a. Caster camber
- b. Line level
- c. Tram
- d. Wheel track

3. | Y1 | c | VICA | 0889 | C | Doug Anderson |

Which reference is the best source of specifications and reference points when measuring a unitized body?

- a. Flat rate manual
- b. Dimensioned drawing
- c. Specification tables
- d. Markings on the bench

.....
4. | Y1 | b | IML Module 7 | 0889 | C | Doug Anderson |

On a damaged unibody vehicle, frame rails should be pulled without moving sheet metal.

- a. True
- b. False

260

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.....
5. | Y2 | a | IML Module 7 | 0889 | C | Doug Anderson |

Panels should be replaced at the factory seams whenever it is practical to do so.

- a. True
- b. False

.....
6. | Y2 | a | IML Module 7 | 0889 | C | Doug Anderson |

During replacement, a clamped structural component needs to be measured only when adjacent panels are damaged.

- a. True
- b. False

.....
7. | Y2 | b | IML Module 7 | 0889 | C | Doug Anderson |

When replaced, the front frame rail should extend behind the floor panel.

- a. True
- b. False

.....
8. | Y2 | a | IML Module 7 | 0889 | C | Doug Anderson |

A panel or rail should be replaced if it has any cracks.

- a. True
- b. False

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.....
9. | Y3 | a | IML Module 7 | 0889 | C | Doug Anderson |

When sheet metal is damaged or pulled, it undergoes metal stress.

- a. True
- b. False

.....
10. | Y3 | c | IML Module 7 | 0889 | C | Doug Anderson |

Which device is used with a spring hammer to perform cold stress relief?

- a. Dolly
- b. Pulling plate
- c. Block of wood or spoon
- d. Clamp

.....
11. | Y3 | a | IML Module 7 | 0889 | C | Doug Anderson |

Work hardening can be caused by hammering directly on damaged metal.

- a. True
- b. False

.....
12. | Y3 | a | IML Module 7 | 0889 | C | Doug Anderson |

Stress relief should be performed periodically during the pulling process.

- a. True
- b. False

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.....
13. | Y4 | b | IML Module 7 | 0889 | C | Doug Anderson |

A large amount of heat should be applied to the damaged area during the heat stress relief process.

- a. True
- b. False

.....
14. | Y4 | a | IML Module 7 | 0889 | C | Doug Anderson |

When undergoing heat stress relief, metal should NOT be heated above 1000°F.

- a. True
- b. False

.....
15. | Y4 | a | IML Module 7 | 0889 | C | Doug Anderson |

What is the maximum amount of time heat should be applied to any one area of a metal panel during the stress relief process?

- a. 3 minutes
- b. 5 minutes
- c. 7 minutes
- d. 9 minutes

.....
16. | Y4 | a | IML Module 7 | 0889 | C | Doug Anderson |

A technician can use a heat crayon to monitor heat build-up when using a carburizing flame.

- a. True
- b. False

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.....
17. | Y5 | b | IML Module 7 | 0889 | C | Doug Anderson |

When replacing high-strength structural components, where should the technician make the welds?

- a. 1 inch away from factory welds
- b. In the same location as the factory welds
- c. Between the factory welds
- d. None of the above

.....
18. | Y5 | c | IML Module 7 | 0889 | C | Doug Anderson |

Which publication would be the best source of procedures for replacing damaged auto body sections?

- a. Auto body textbooks
- b. After-market publications
- c. Manufacturer's supplemental publications
- d. None of the above

.....
19. | Y5 | c | IML Module 7 | 0889 | C | Doug Anderson |

How many principal components make up a unibody structure?

- a. 5
- b. 6
- c. 7
- d. 8

20. | Y5 | a | IML Module 7 | 0889 | C | Doug Anderson |

High-strength steel should be replaced if it cracks while being pulled.

- a. True
- b. False

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21. | Y6 | b | IML Module 7 | 0889 | C | Doug Anderson |

How far apart should cuts on inner and outer panel sections be when the frame rail is sectioned with an offset ball joint?

- a. 1 inch
- b. 2 inches
- c. 3 inches
- d. 4 inches

22. | Y6 | b | IML Module 7 | 0889 | C | Doug Anderson |

When cutting with an oxyacetylene torch, the technician should trim recycled parts no closer than 3 inches apart.

- a. True
- b. False

Which tool should be used with a wire brush to clean recycled parts for sectioning?

- a. Sandpaper
- b. Scraper
- c. Air chisel
- d. Oxyacetylene torch

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.....
 24. | Y7 | a | IML Module 7 | 0889 | C | Doug Anderson |

If a vehicle's cradle was moved as a result of a collision, the rubber mounts between the frame and cradle must be inspected.

- a. True
- b. False

.....
 25. | Y7 | a | IML Module 7 | 0889 | C | Doug Anderson |

Vacuum lines may be plugged with golf tees.

- a. True
- b. False

.....
 26. | Y7 | d | IML Module 7 | 0889 | C | Doug Anderson |

Which specifications apply to fasteners that are used to install automotive mechanical components?

- a. Tensile strength specifications
- b. Yield strength specifications
- c. Proof load specifications
- d. All of the above

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.....
 1. | Leadership 1 | c | VICA Curriculum | 0889 | C | Fred
 Smith |

Why should students NOT enroll in occupational training programs?

- a. To work toward a career
- b. To develop business and industry contacts
- c. To avoid taking math, science, or english classes
- d. To work toward financial independence

.....
 2. | Leadership 1 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

Only one VICA club per school is allowed.

- a. True
- b. False

.....
 3. | Leadership 1 | d | VICA Curriculum | 0889 | C | Fred
 Smith |

How many VICA districts does Missouri have?

- a. 3
- b. 5
- c. 7
- d. 9

.....
4. | Leadership 1 | b | VICA Curriculum | 0889 | C | Fred
Smith |

In which national VICA region is Missouri located?

- a. 3
- b. 4
- c. 5
- d. 6

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.....
5. | Leadership 2 | b | VICA Curriculum | 0889 | C | Fred
Smith |

Personal values rarely affect career choices.

- a. True
- b. False

.....
6. | Leadership 2 | a | VICA Curriculum | 0889 | C | Fred
Smith |

A career should align with one's personal values, interests, and abilities.

- a. True
- b. False

.....
7. | Leadership 3 | b | VICA Curriculum | 0889 | C | Fred
Smith |

Effective decision making can be broken down into six steps.

- a. True
- b. False

.....
8. | Leadership 3 | b | VICA Curriculum | 0889 | C | Fred
Smith |

A new supervisor should be liked by all workers in order to be effective.

- a. True
- b. False

.....
9. | Leadership 3 | d | VICA Curriculum | 0889 | C | Fred
Smith |

Which goal should a supervisor work toward in order to succeed and improve worker moral?

- a. Keep attention on getting work done
- b. Be as fair as possible
- c. Avoid taking a worker's negative feelings personally
- d. All the above

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.....
 10. | Leadership 3 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

To be more productive, workers need ways to measure and use time more effectively.

- a. True
- b. False

.....
11. | Leadership 4 | d | VICA Curriculum | 0889 | C | Fred
Smith |

Which trait or traits do employers expect from their employees?

- a. Cooperation and acceptance of evaluation
- b. Honesty
- c. Initiative
- d. All the above

.....
12. | Leadership 4 | d | VICA Curriculum | 0889 | C | Fred
Smith |

Which characteristic should employees expect from their employers?

- a. Understanding of job requirements
- b. Fair payment for labor
- c. Equal treatment for all employees
- d. All of the above

.....
13. | Leadership 4 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Effective communication, care for people, flexibility, dependability, optimism, and perseverance are traits of good leaders.

- a. True
- b. False

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.....
 14. | Leadership 5 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

Good table manners include entering into table conversation.

- a. True
- b. False

.....
 15. | Leadership 5 | b | VICA Curriculum | 0889 | C | Fred
 Smith |

A coat room clerk at a restaurant is usually NOT tipped.

- a. True
- b. False

.....
 16. | Leadership 5 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

Employees should stand when an authority figure (employer) joins them for a meal.

- a. True
- b. False

.....
17. | Leadership 6 | b | VICA Curriculum | 0889 | C | Fred
Smith |

It is a good idea to use big words when writing in order to impress people.

- a. True
- b. False

.....
18. | Leadership 6 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Self-concept affects verbal communication.

- a. True
- b. False

.....
19. | Leadership 6 | a | VICA Curriculum | 0889 | C | Fred
Smith |

When speaking, always use a vocabulary that others can understand.

- a. True
- b. False

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.....
 20. | Leadership 7 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

Professionals respect themselves and others.

- a. True
- b. False

.....
 21. | Leadership 7 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

A person's code of ethics defines his or her principles or standards of right and wrong.

- a. True
- b. False

.....
 22. | Leadership 7 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

A professional code of ethics includes both legal and moral standards.

- a. True
- b. False

.....
23. | Leadership 8 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Appropriate business dress for women would include a skirt.

- a. True
- b. False

.....
24. | Leadership 8 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Appropriate business attire for men would include a traditional dark suit.

- a. True
- b. False

.....
25. | Leadership 8 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Fashion accessories reflect the self-image of an individual.

- a. True
- b. False

.....
26. | Leadership 8 | a | VICA Curriculum | 0889 | C | Fred
Smith |

Getting plenty of sleep and avoiding junk food can improve personal appearance.

- a. True
- b. False

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.....
 27.. | Leadership 9 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

A resume is a well-organized overview of what one has to offer an employer.

- a. True
- b. False

.....
 28. | Leadership 9 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

A letter of application should ask an employer for an interview.

- a. True
- b. False

.....
 29. | Leadership 9 | a | VICA Curriculum | 0889 | C | Fred
 Smith |

The local chamber of commerce can help people research employers.

- a. True
- b. False

.....
30. | Leadership 10 | a | VICA Curriculum | 0889 | C |
Fred Smith |

When parliamentary procedures are used at a meeting, only one subject at a time should be discussed.

- a. True
- b. False

.....
31. | Leadership 10 | a | VICA Curriculum | 0889 | C |
Fred Smith |

Parliamentary procedure calls for the finishing of old business before new business is started.

- a. True
- b. False

.....
32. | Leadership 10 | a | VICA Curriculum | 0889 | C |
Fred Smith |

Parliamentary procedure calls for standing committee reports to be given before special committee reports.

- a. True
- b. False

.....
33. | Leadership 10 | a | VICA Curriculum | 0889 | C |
Fred Smith |

Proper use of the gavel signals members to stand or sit.

- a. True
- b. False

END

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